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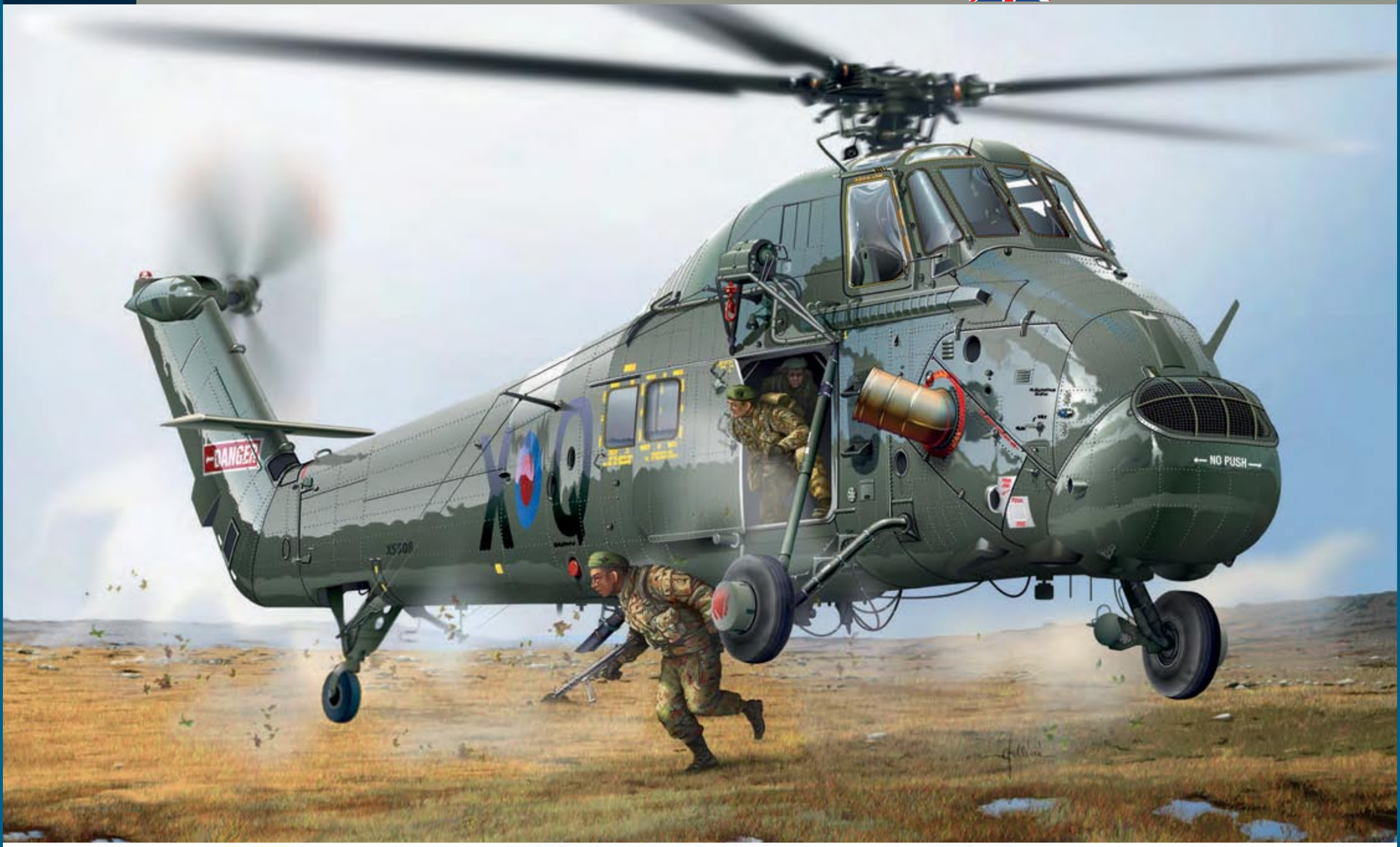
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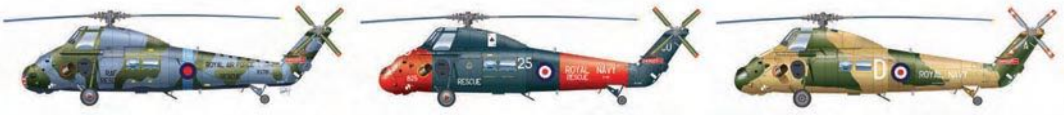
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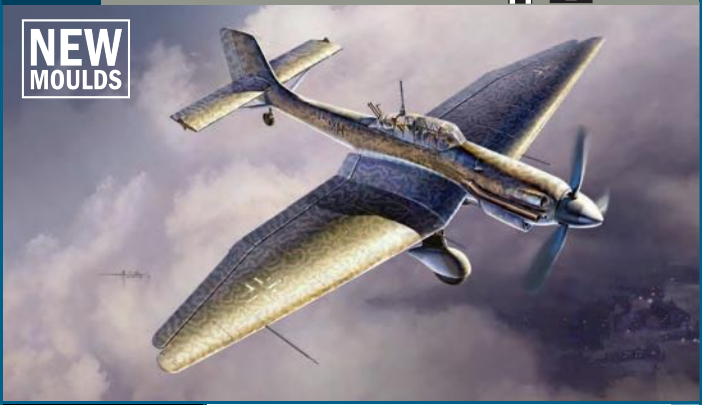

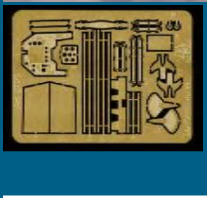

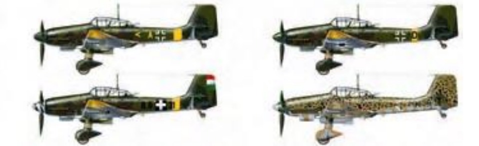

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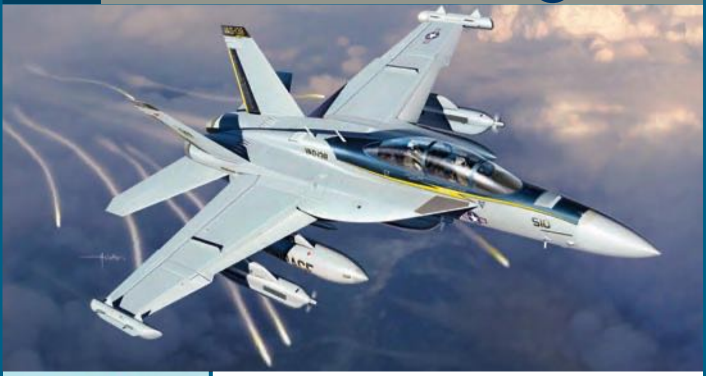

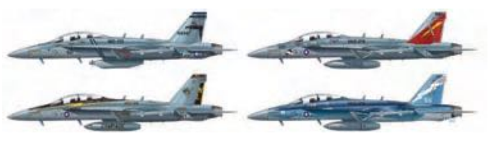

Super Decals Sheet

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Late breaking news and ramblings from the Editor

Harrier GR.9 Arrives at IWM Duxford

Recently, BAE Systems Harrier GR.9 ZD461 was transported from RAF Cottesmore to IWM Duxford, where it will undergo conservation work and a rebuild.

The acquisition of a second-generation Harrier with Afghanistan theatre history is hugely important to Imperial War Museums, enabling them to communicate and interpret significant aspects of contemporary conflict. No other aircraft in the current IWM collection has Afghanistan service history so Harrier ZD461 presents an important addition to the IWM .

Harrier GR9 ZD461 was originally built as a GR.5 model and was upgraded to a GR.7 in 1992. In 1999, the aircraft served with No.4 Army Co-operation (AC) Squadron and moved with the squadron from Germany to RAF Cottesmore in Rutland, Great Britain.

During February and March 2003, the aircraft was deployed with No.4 AC Squadron to Operation Telic in Iraq. In August 2004, No.4 AC Squadron was deployed to Operation Herrick, at Kandahar Airfield, Afghanistan, followed by deployment to HMS Invincible in 2005. By May 2006, No.4 AC Squadron was once again serving in Afghanistan. This was followed by a tour of duty at Luqa, Malta before returning to RAF Cottesmore in August 2007. From there the aircraft was transferred to RAF Lossiemouth in September 2007 before being upgraded to a GR9 under the Joint Maintenance and Upgrade programme in 2008.

In January 2010, Harrier ZD461 was grounded at Nellis Air Force Base, Nevada, having suffered CAT.3 damage from brake fire during exercise Red Flag 2010-2. In March 2010, it was returned to RAF Cottesmore for repairs, where it remained following the withdrawal of the Harrier fleet from RAF service in December 2010.

More information may be found on the IWM website www.iwm.org.uk

Revell Launches Scale 2012: the search for 'model of the year' begins

Announcing the 2012 Scale Award, Revell will award the coveted 'Scale' trophy to the model they judge as best of the year. Participants may choose any model kit and design but the key judgement criteria are creativity and attractiveness of each model. The competition will be split into two categories - 'adults' (17 years+) and 'teens' (up to 16 years).

Scale
12
REVELL
MODELBUILDING
AWARD

In the first instance, all models submitted will be reviewed by an expert panel. The ten best models per category will be selected for display at the 'modell-hobby-spiel' fair in Leipzig in October 2012. Here, the visitors will vote for the winning model.

The winner will receive the coveted model building award and an exclusive invitation to the European market leader in plastic model kits for a behind-the-scenes day trip. There will also be some fantastic prizes for runners-up who come 2nd to 10th. The 'teens' category winner will receive a certificate and 200 Euros shopping voucher for model kits.

All participants should send detailed pictures of their models via post or email by 15th August 2012 at the latest. In order to review submissions properly, please add a short description of the model with the pictures, indicating its scale and additional parts used. Most importantly, full contact details including phone number must be enclosed.

Entries may be submitted by email to award@revell.de

Terms: 1. Only fully post-paid deliveries can be included in the competition. 2.The judges' decision will be final, no correspondence will be entered into and legal recourse is excluded. 3. Competition is not open to employees (or members of their immediate families) of Revell.

Revell model kits are available from all good toy and model retailers. For further information visit www.revell.eu.

Scale ModelWorld 2012

Scale ModelWorld, the UK's premier modelling event and the biggest public model show in the world, will be held on 10 & 11 November 2012. This year, the organisers have added another hall to the show creating 33% more space than in 2011. The new fourth hall at the Telford International Centre, The Ludlow Suite, will be the new home to the IPMS (UK) annual competition. The KitSwap will be moving to a larger area in the foyer of Hall 3, releasing a lot of space for many more club displays and Traders. Other attractions will include a full size Spitfire replica and a special display by the British Titanic Society.

the international centre

The headline speaker for this year's Meet The Maker event held in conjunction with HobbyLink Japan at Scale ModelWorld 2012 is Mr Hideyuki Shigeta, President of Zoukei Mura Inc. creator of the fantastic range of Super Wing Series 1/32 scale aircraft. Mr Shigeta says "I am excited and honoured to be offered the opportunity to give a lecture at this historic show". Mr Shigeta will give a one-hour lecture on the concept and development of the Super Wing Series kits.

IPMS UK is also pleased to announce that as of 10 May, almost exactly six months before the show opens to the public, all available trade space at Scale ModelWorld 2012 has been booked. There will be 170 diverse traders attending from all round the world and the demand for trade space is such that there is already a waiting list in case of cancellation.

For more information please visit www.smwshow.com or to be added to the trade waiting list please contact Richard Kent, Scale ModelWorld Organiser at scalemodelworld@ipms-uk.co.uk"

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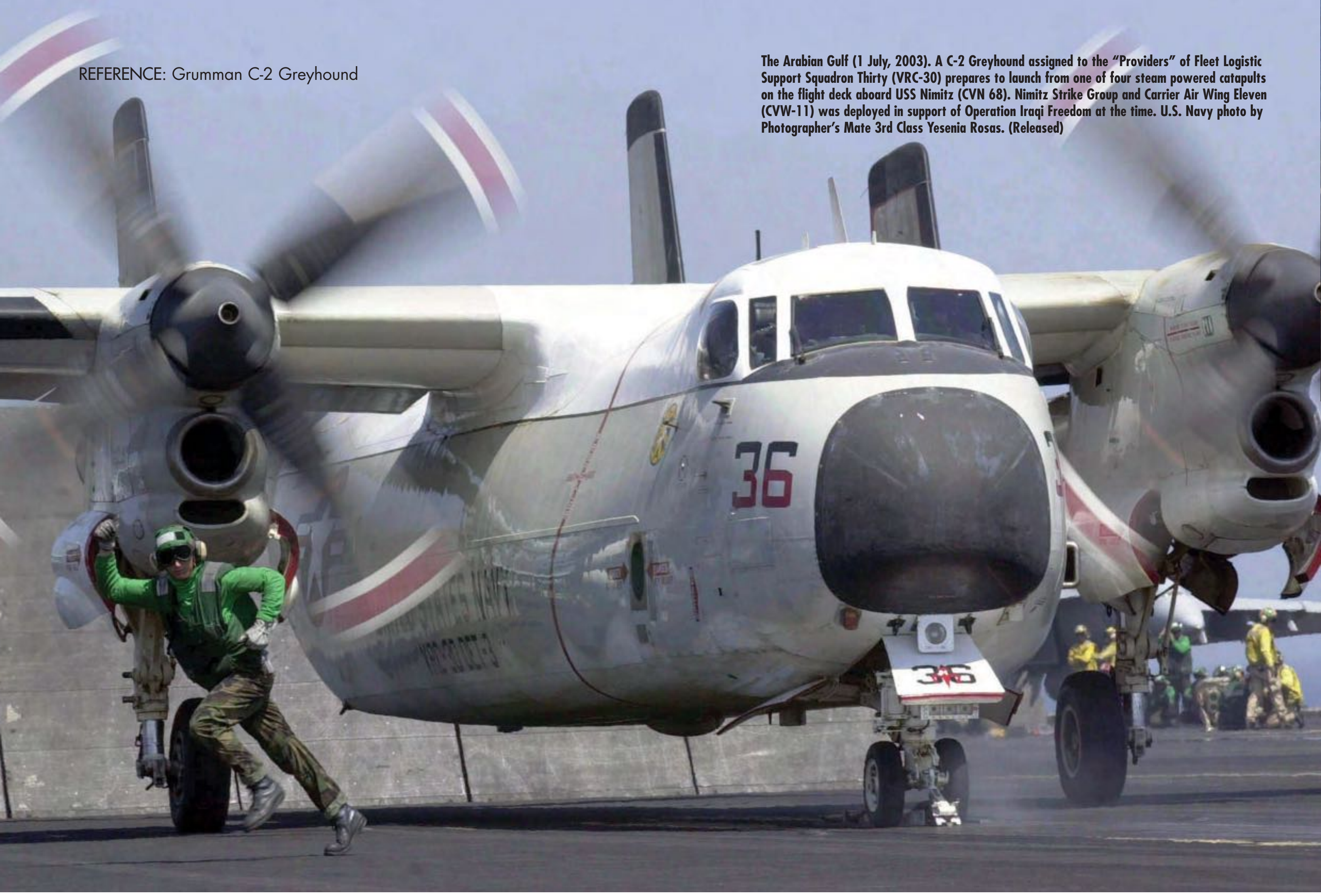


The Arabian Gulf (1 July, 2003). A C-2 Greyhound assigned to the "Providers" of Fleet Logistic Support Squadron Thirty (VRC-30) prepares to launch from one of four steam powered catapults on the flight deck aboard USS Nimitz (CVN 68). Nimitz Strike Group and Carrier Air Wing Eleven (CVW-11) was deployed in support of Operation Iraqi Freedom at the time. U.S. Navy photo by Photographer's Mate 3rd Class Yesenia Rosas. (Released)

THE GREYHOUND AND ME!

Rodger Kelly relates his up-close and personal experiences with Grumman's C-2 Greyhound, and shares some helpful photos of the aircraft in action.

You would be hard pressed to call Grumman's C-2 Greyhound anything other than "utilitarian", but this gull grey and white painted machine holds a special place in my heart as it has enabled me to experience the thrill and violence of catapult shots and arrested landings from the decks of US Navy carriers.

I have been fortunate enough to experience two of each. A trap aboard the USS Kitty Hawk off the coast of New South Wales and a trap aboard the USS George Washington off the coast of Western Australia with the catapult shots from The Kitty Hawk off Guam in the Pacific Ocean and the George Washington in the Indian Ocean off Western Australia

So what is it like? Let me say that your first experience of both is an absolute surprise. No matter how much others tell you what to expect, you are still stunned at the absolute violence of it all. The second time around the violence is still there but knowing what to expect; you are well and truly prepared and can relish it.

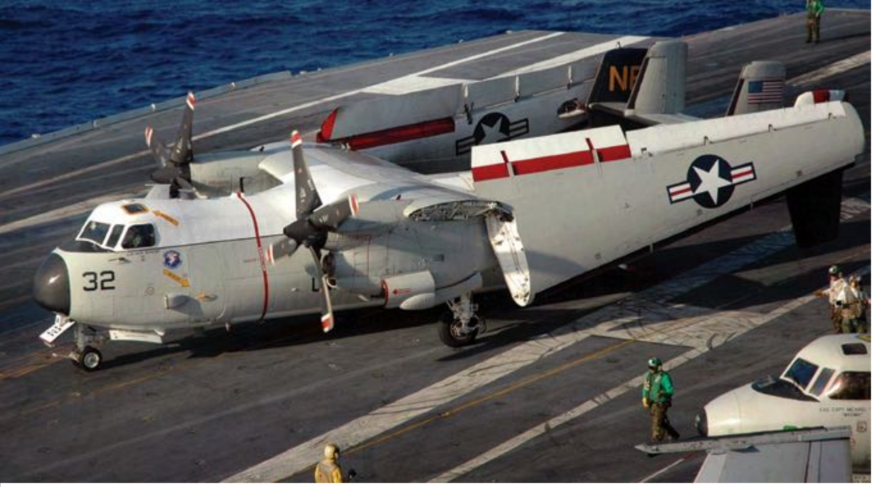
THE DEPARTURE

All four of the C-2 flights I have experienced were preceded by very thorough and professional briefings delivered by members of Det 5, VRC-30. Whilst peppered with a little gallows humour the briefing does relax you once you realise that these blokes are consummate professionals who really know what they are doing. You are advised on how to correctly don and secure the "cranial" helmet on your head as well as how to wear and inflate the lifejacket you have been issued with.

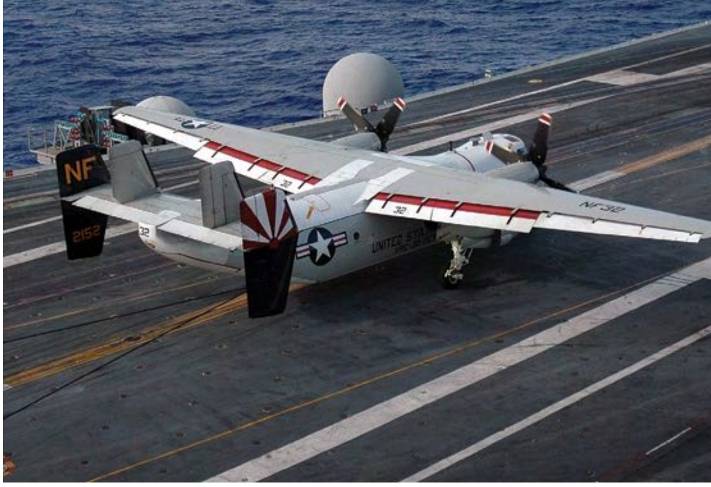
Following the briefing you are told to "follow me" and you head on out to the waiting aircraft in Indian file with your fellow passengers. Whilst on shore this is a quiet and easy stroll across a tarmac to a silent machine but aboard ship it is goggles down as you are entering an entirely different world of taxiing aircraft and the cacophony of noise, steam and jet wash.

Aboard ship, the C-2 more often than not has its engines running and you approach from its rear to be met by the aircraft's loadmaster who directs you to your seat with the wave of a gloved hand and a warning to watch your head and duck under the red padded beams that run athwart wise the roof of the cabin. The first thing that strikes you is that all the seating faces the rear of the aircraft and how "well used" it appears with its chipped and worn paintwork. Another impression is that it is very "squeezy" with very little space between your knees, the seat in front of you and the shoulders of the fellow beside you. Once in your seat you go about strapping yourself in ensuring that the belts that pass over your shoulders are not twisted and are correctly snapped into the buckle in your lap.

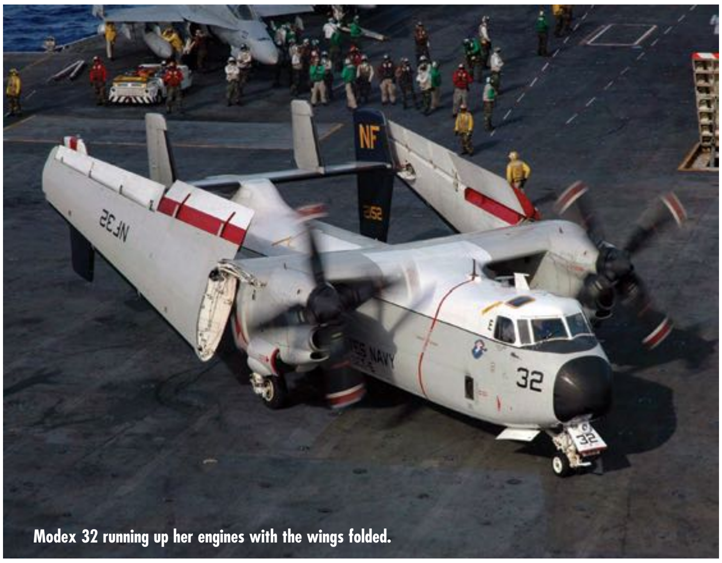
As you and your fellow passengers go about this ➤



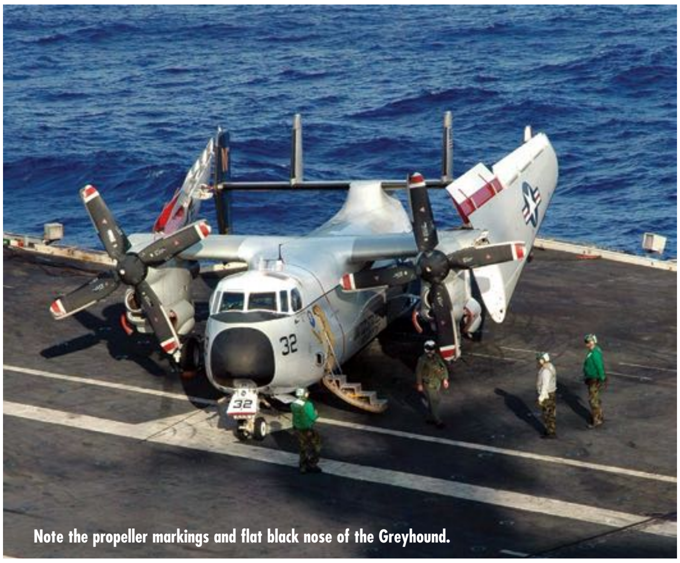
C-2 Greyhound BuNo 162152 Modex 32 aboard USS Kitty Hawk, 4 June 2008.



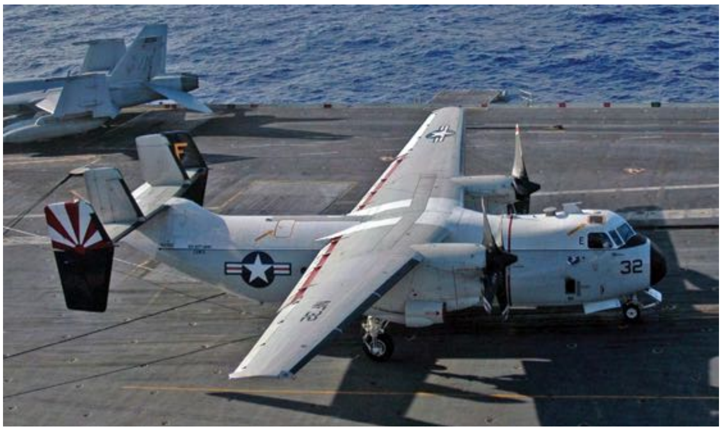
The same aircraft views from the rear. We have a good view of the tail artwork on the outer fins here.



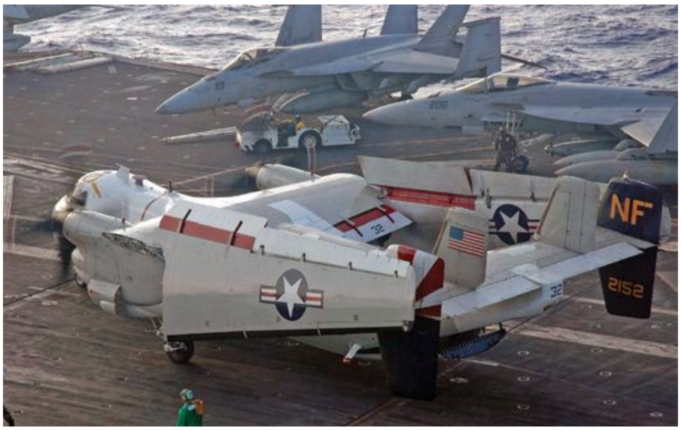
Modex 32 running up her engines with the wings folded.



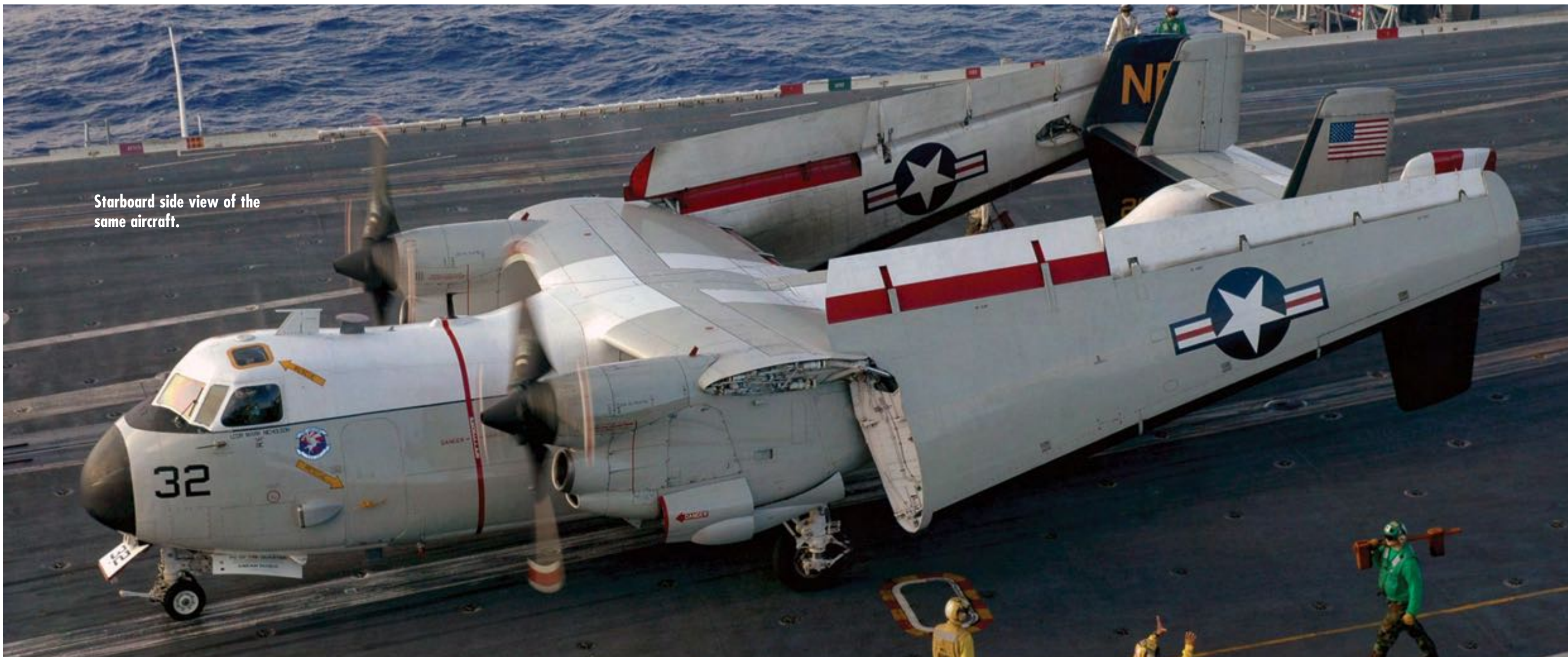
Note the propeller markings and flat black nose of the Greyhound.



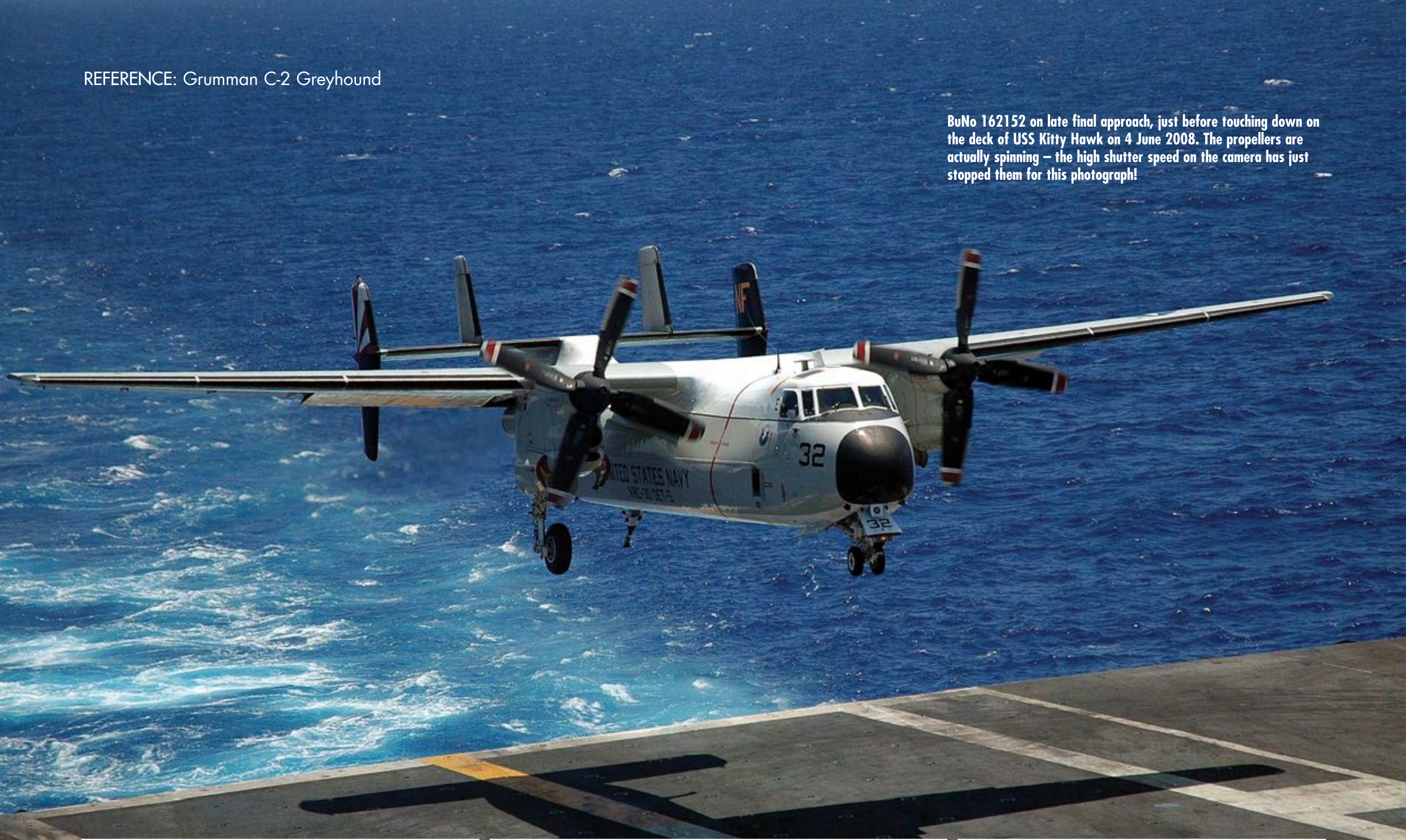
A nice side view of BuNo 162152 showing the fin markings to good effect.



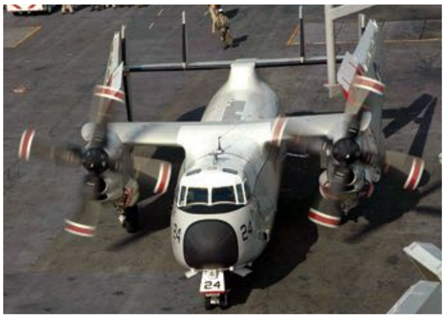
A view of the same aircraft from the port side. It is interesting to note that the outward face of the port side inboard fin features a US flag. This does not appear on the starboard side of the inboard fin.



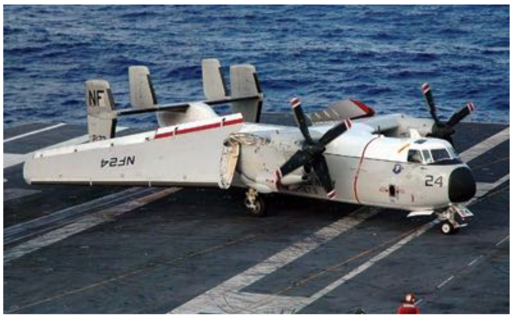
Starboard side view of the same aircraft.



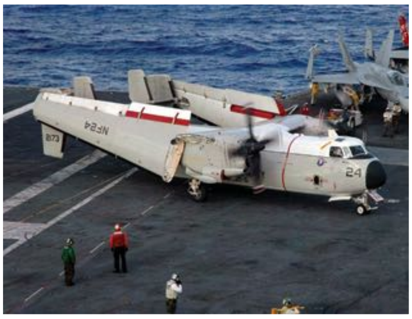
BuNo 162152 on late final approach, just before touching down on the deck of USS Kitty Hawk on 4 June 2008. The propellers are actually spinning – the high shutter speed on the camera has just stopped them for this photograph!



Nice detail of the nose of the same Greyhound.

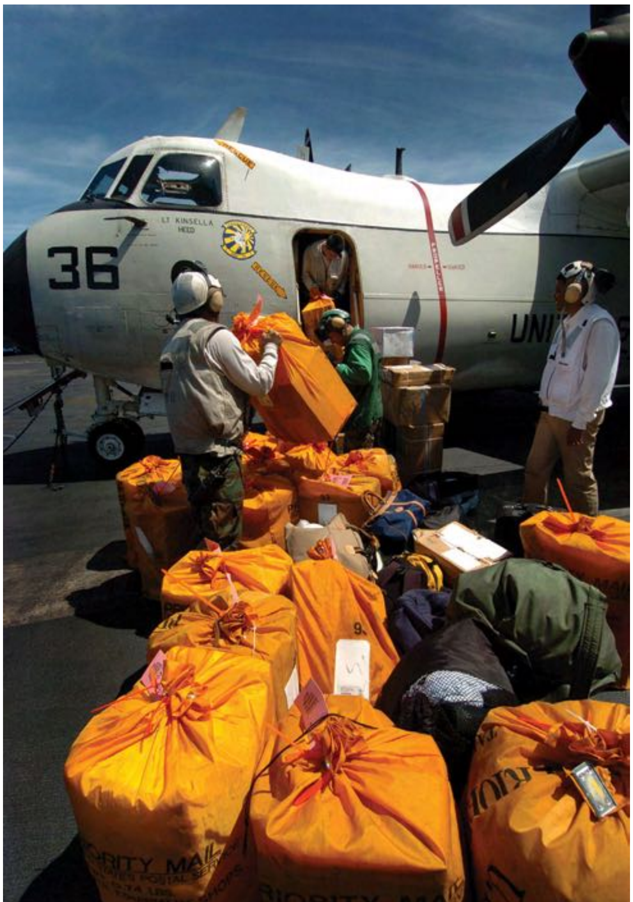


BuNo 162152 in the process of folding its wings.



A few seconds later. Note the final angle of the folded wings.

Above: California coastline (6 August, 2003) -- Lt. j.g. Robert "R.J." Wackerman pilots a C-2 Greyhound, assigned to the "Providers" of Fleet Logistics Squadron Thirty (VRC-30), in preparation for landing at Naval Base Ventura County, Calif., during a routine logistics flight from Naval Air Station North Island. U.S. Navy photo by Photographer's Mate Airman Rebecca J. Moat. (Released).



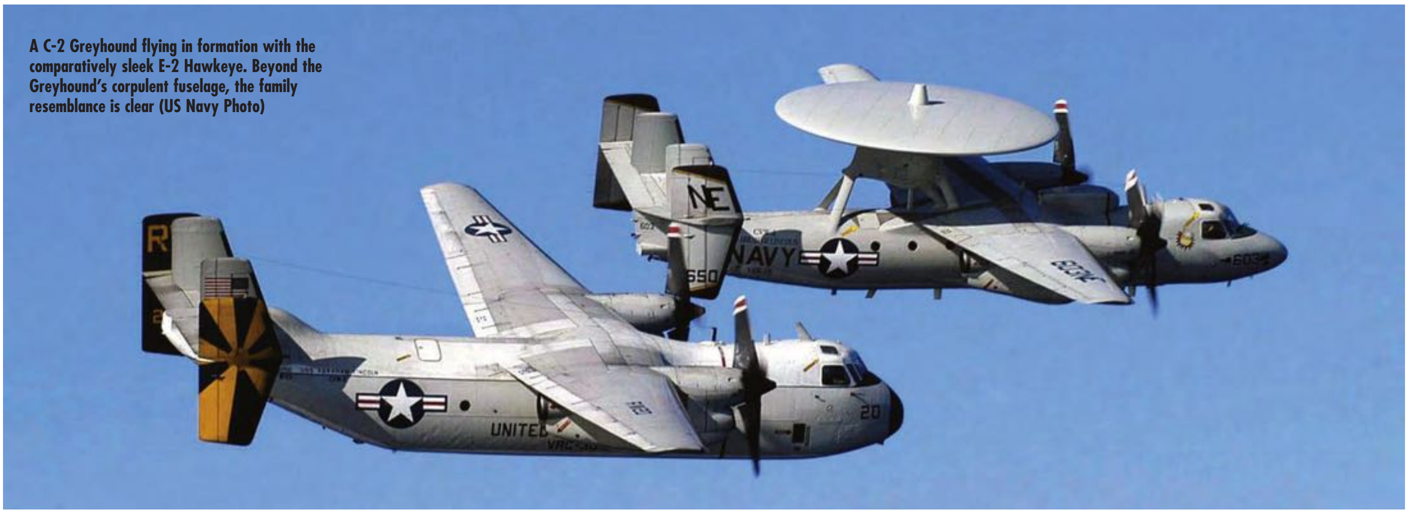
Right:U.S. Navy sailors work to load bags of mail into a C-2 Greyhound aircraft on the flight deck of the USS John C. Stennis (CVN 74) on 27 August, 2004. The Greyhound, from Fleet Logistic Support Squadron 30, is responsible for the delivery of passengers, cargo and mail to the ship in support of the strike group. US Navy photo by Petty Officer 3rd class Mark J. Rebilas, (Released)

PACIFIC OCEAN (July 29, 2011) Aviation Boatswain's Mate (Handling) 2nd Class Kyle Kraus observes flight operations aboard the Nimitz-class aircraft carrier USS John C. Stennis (CVN 74). The John C. Stennis Carrier Strike Group is on its way to the western Pacific Ocean and the Arabian Gulf for a scheduled deployment. (U.S. Navy photo by Mass Communication Specialist 2nd Class Walter M. Wayman/Released)

A view of the avionics fitted to the top of the fuselage.

BuNo 162173 aboard USS Kitty Hawk on 3 June, 2008.

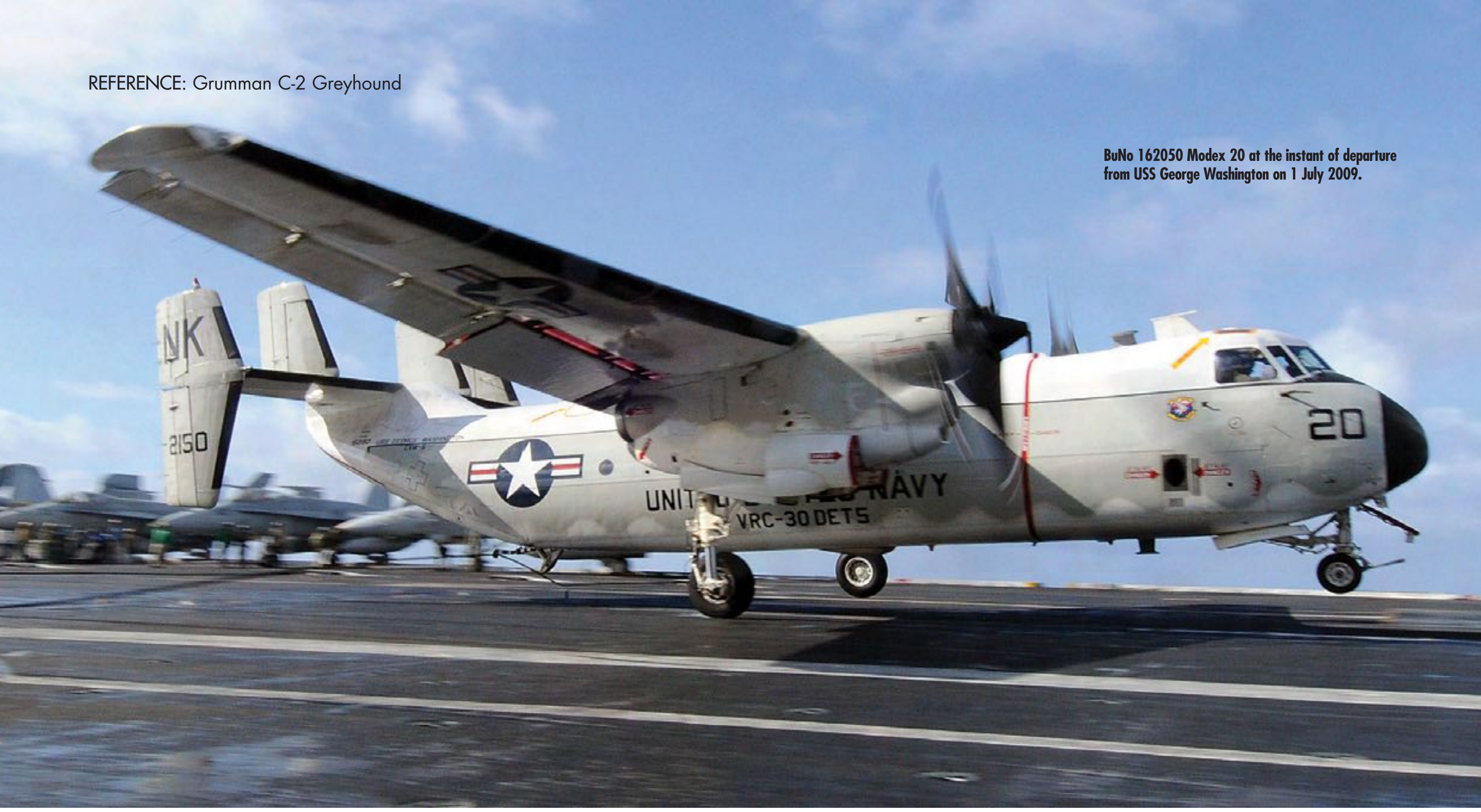
A forward side view of the same aircraft.



A C-2 Greyhound flying in formation with the comparatively sleek E-2 Hawkeye. Beyond the Greyhound's corpulent fuselage, the family resemblance is clear (US Navy Photo)

BuNo 162173 running up the engines.

BuNo 162050 Modex 20 USS George Washington 14 Apr 2009 (US Navy Photo).



BuNo 162050 Modex 20 at the instant of departure from USS George Washington on 1 July 2009.

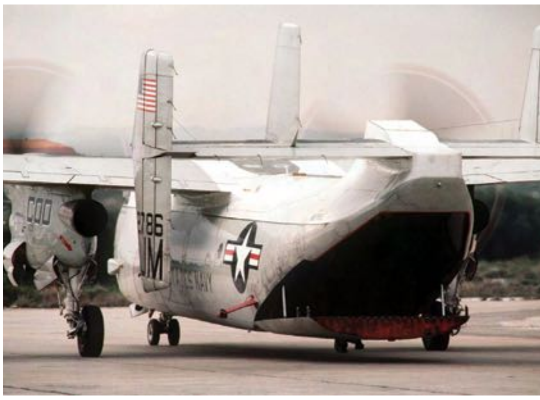
you receive yet another brief from the Loadmasters on what to do in case you have to exit the aircraft in the case of an emergency on shore and in the water and you silently think to yourself that it was hard enough to get in and strapped in let alone get out in a hurry!

Speed is of the essence when aboard ship and it seems that no sooner have you strapped in than the aircraft is waddling its way towards the stern of the ship to turn towards the bow and line up on the catapult. It is hot inside the fuselage and you reach up and adjust a fresh air vent nozzle to full blast and direct it toward your face. It is noisy too; very noisy even though you have soft plugs jammed into your ears as well as the integral earmuffs of your cranial. The waddling finally stops and you come to a halt. Having watched C-2s launch previously you realise what is going on outside your cramped little world inside the fuselage as the green shirts go about their checks to ensure that the launch bar on the nose undercarriage is attached to the catapult shuttle and the hold back bar is positioned correctly. Inside you are oblivious to all this though as there are no windows to look out of and you silently go through the points you were briefed on – ensure that your harness is tight - that your shins are away from the seat in front of you – that your arms are tucked into your harness. You feel and hear the C-2's engines go to full revs and the feel the whole airframe twitch and quiver. This seems to go on forever until finally you see the arms of the two loadmasters in front of you raise and hear them yell "Here we go! Here we go!" You quickly rest your cranial on the seat in front of you as the airframe continues to buck and quiver until the catapult fires, the hold back breaks and you are on your way toward the bows accelerating to 130 knots in less than 300 feet and three seconds. The noise is brutal as the aircraft screams along the deck and you flung forward into your shoulder straps. The world finally quietens down as you are released from the shuttle and flung off the deck to begin climbing away.

THE ARRIVAL

The trap on deck is no less violent than the launch even if you are flying a sedate "Case 3" procedure set down for delivering DVs (distinguished visitors) aboard. The "Case 3" procedure entails a long approach from some 20 miles out from the carrier on a 3 degree glide slope rather than the more normal "fighter break" where the aircraft performs a sharp left hand banking turn that drives you down into your seat as the "G"s increase – a great surprise if you are not expecting it!

Your first indication that you are nearing the carrier is delivered by your ears when they pop with the change in altitude as you descend. Your next sign is the fact that the engines are being throttled back a little. You now take the time to ensure that you are ready for what is about to come and tighten your harness that you have eased after the take off to make the transit to the carrier a little more comfortable. The rapid increase and decrease in engine revs alerts you that you are getting close and you thread your arms into your harness to stop them flailing around. The raised arms of the loadmasters and their yelling of "Here we go! Here we go!" is your final indication. You sit there all trussed up as the C-2 seemingly drones on the same as it did on the way out and you start to wonder if you are ever going to get down. Your silent contemplation is rudely interrupted by an enormous bang as the undercarriage hits the deck and is instantly compressed and seemingly instantly released as you bounce off the deck. At this same instant the arrestor hook picks up a wire and raises it some six to eight feet off the deck. The deceleration is immediate and vicious to say the least and you are compressed into your seat cushion. The noise of the engines at full throttle is palpable and the fuselage bangs and vibrates as the arrestor wire is pulled out to almost the length of the flight deck as we careen towards the bows. In an instant it is over. The revs drop, the arrestor hook is raised dropping the cable on the deck and the C-2 waddles forward folding its wings back along its fuselage sides, turns right and taxies back toward the island whilst opening its rear hatch and lowering its ramp to allow the heady mixture of the scent of jet fuel and steam to greet you as the grand old lady bumps along the deck. You whisper a tiny prayer of thanks for your safe delivery and think wow; I'm glad that it's all over but at the same time you start to look forward to the next one! •



The big aft ramp door of the Greyhound (US Navy Photo).

A Grumman C-2A Greyhound carrier on-board delivery (COD) aircraft from fleet logistic support squadron VR-24 on 1 Jul 1988. The aircraft, which was flying in support of the nuclear-powered aircraft carrier USS Dwight D. Eisenhower (CVN-69), was based at Naval Air Station, Sigonella (Sicily, Italy). US Navy Photo.

Rodger Kelly wishes to thank to the US Navy for their hospitality during his visits aboard USS Kitty Hawk and USS George Washington.

Photos are by Rodger Kelly unless otherwise stated.

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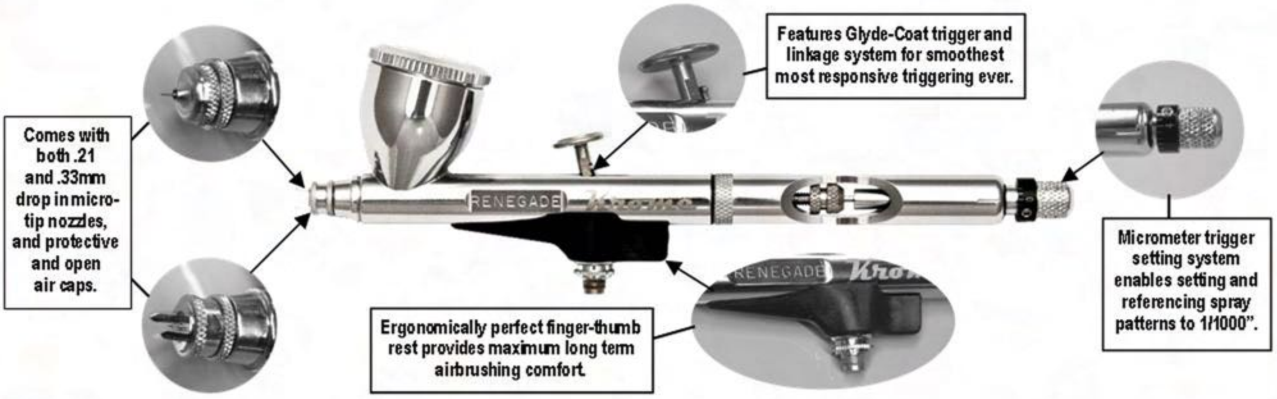

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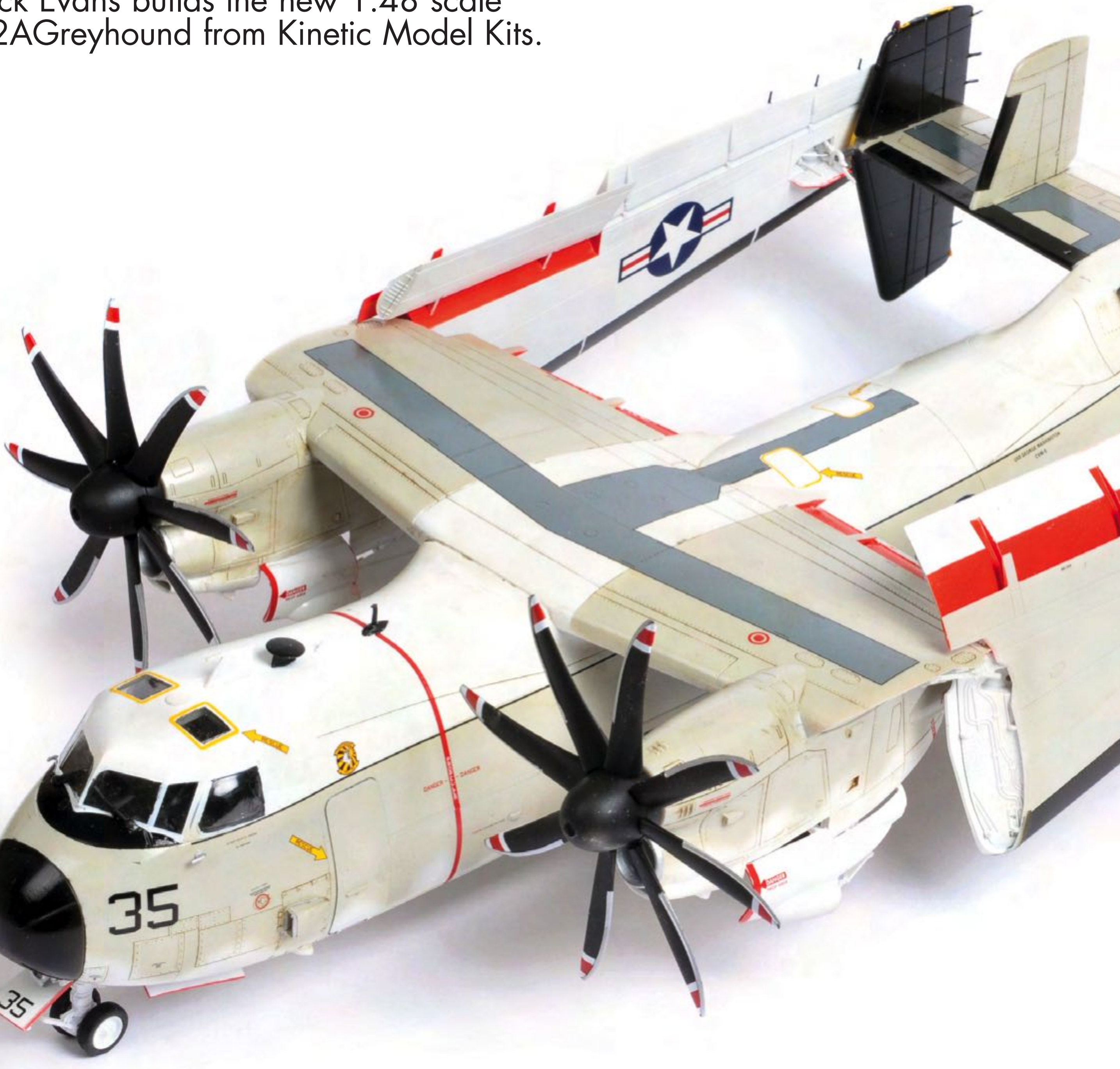
GARGANTUAN GREYHOUND

Mick Evans builds the new 1:48 scale C-2AGreyhound from Kinetic Model Kits.



KINETIC Model Kits
C-2A
GREYHOUND
1:48
C-2A VRC-30, USS Ronald Reagan, 2010
C-2A VRC-30 det.5, USS George Washington, 2011, Operation Tomodachi
WITH FULL INTERIOR

Kinetic is the first manufacturer to produce an injection-moulded C-2 Greyhound in 1:48 scale.

Kinetic's 1:48 scale C-2A Greyhound kit comes in quite a large box and has approximately 209 grey plastic parts and 14 clear parts. The in-box review was conducted by Brett Green in Issue 9 of Military Illustrated Modeller magazine. The big question on everyone's mind, however, is how does it build? Kinetic have been the big improvers in the industry over the past few years and, while still not in the same league as some of the older market leaders, they are certainly producing very good kits.

The build starts with the cockpit, cabin and nose wheel well assembly. The cockpit is sufficiently detailed without the use of any aftermarket detail sets. The amount of detail that you will see through the cockpit and cabin glazing is not huge. The cockpit and cabin seats are fine but lack any seat harness and webbing. These may easily be added by the individual modeller if so desired. Perhaps Kinetic will team with Eduard again and release an aftermarket colour photo-etched detail set like they did for the F-16 and Hawkeye kits.

I had some trouble lining up the cabin structure within the fuselage halves and getting it to sit nicely prior to fixing the assembly with liquid glue. The cabin floor needed some trimming to get it to fit correctly but, once it was fitted, the fuselage assembled very nicely and did not need large amounts of filler or sanding.

I did put a lot of weight in the fuselage nose area but as I found later this was still nowhere near enough when the wings are folded. The amount of detail visible through the forward entry door and rear ramp area is sufficient without adding huge amounts of extra detail.

The next challenge is to install the inner main wing area. These require a little bit of clamping so the halves sit together nicely.

The engine nacelles are the next major assemblies. These fit very nicely, trapping the engine inlet, engine exhaust and wheel well components. My only issue here was some ugly mould knock out pin marks in the wheel well ceiling that need some attention. I did some scraping with my hobby knife that made them almost disappear. That was acceptable to me.

I left the nacelles off until I had painted the fuselage as this made the job of masking and painting the fuselage a lot easier.

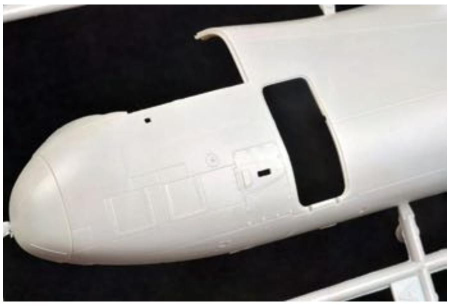
The wings assembled very easily and the inner wing fitted into the fuselage recess nicely, requiring just a little filler to blend the front and rear joins.

Next came the tail plane assembly. This went together well and fitted into the fuselage with very little filler required to blend the assembly into the fuselage.

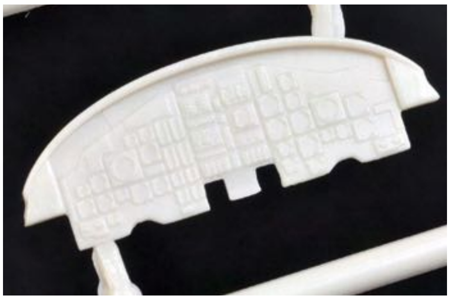
At this point I noticed a disaster. I had not been following the instruction sheet closely and with the tail plane being fully assembled off the aircraft I had goofed up and assembled the main fins upside down on the wrong sides. This was easy to do as most aircraft have the majority of the fin above the horizontal stabiliser whereas the Greyhound has the majority of the fin below the horizontal stabiliser, so I beat myself around the back of the head for this goof up.

Fortunately I was able to remove and replace the fins correctly without any damage and before any paint was applied.

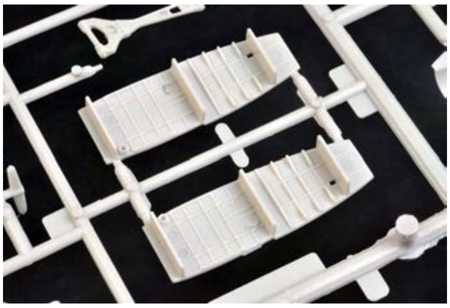
The clear cockpit cover was then fitted. This went in snugly, only needing a little bit of filler to blend the rear seam. The windscreen and side windows were then masked prior to



Surface detail is very good. The front door is a separate part and may be posed open.

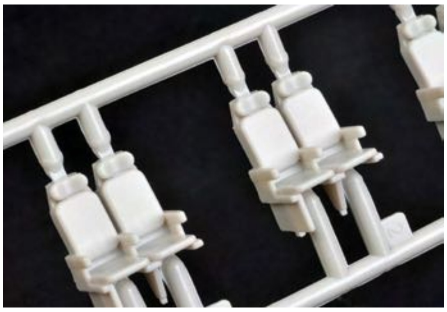


Instrument panel detail.

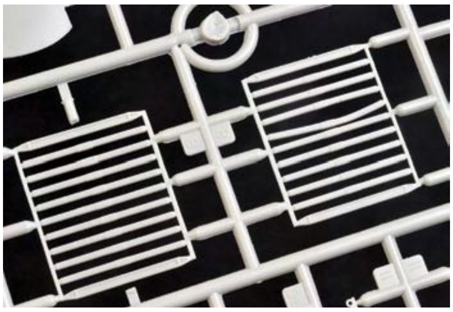


The landing gear ceilings have some ejector pin circles that need to be dealt with.

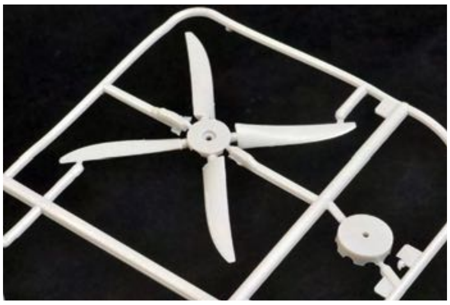
> ***"I did put a lot of weight in the fuselage nose area but I found later this was still nowhere near enough when the wings are folded."***



Seats and other details are provided for the interior. Extra detailing will be worthwhile if the cargo bay ramp is left open.

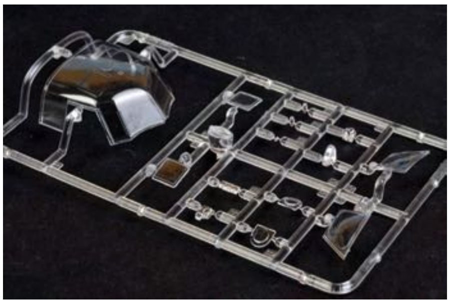


More interior details, this time restraining straps.

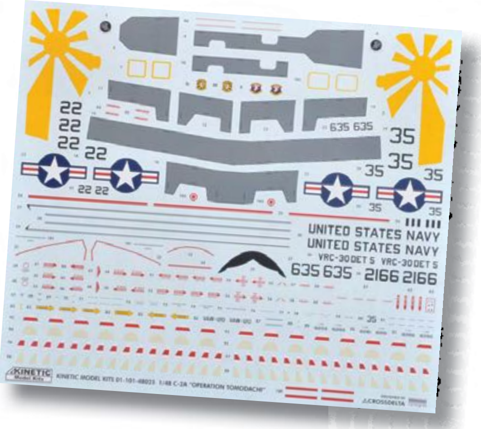


Two styles of propeller are provided with the kit – eight bladed (this is one half of one side)…

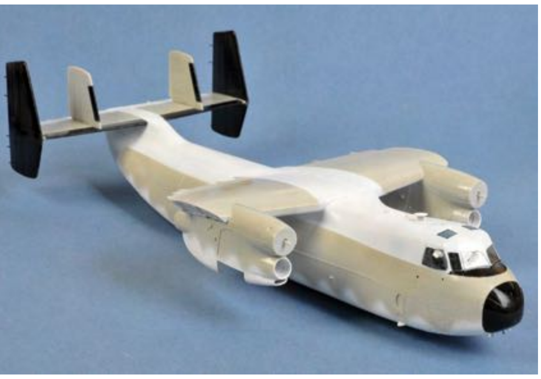
…and the broad four-bladed propellers.



The clear parts include separate bulged sides for the windscreen.

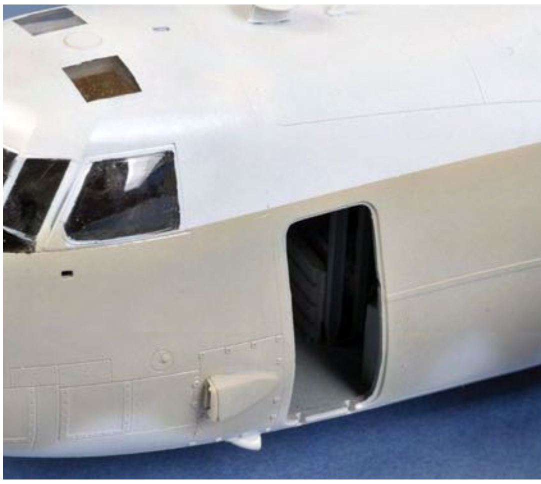


The excellent decals are designed by Crossdelta and printed by Cartograf.



The main fuselage and wing centre section assembly.

Structural detail is provided for the big cargo / passenger bay.

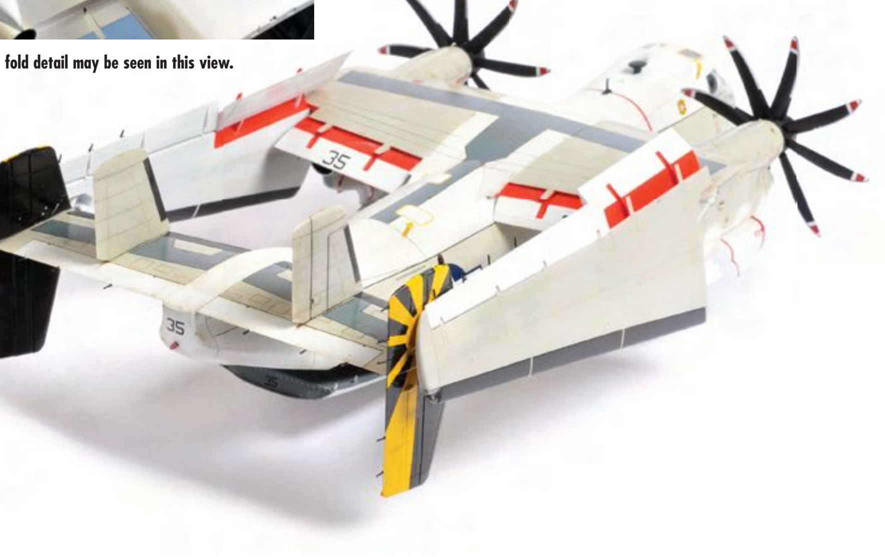


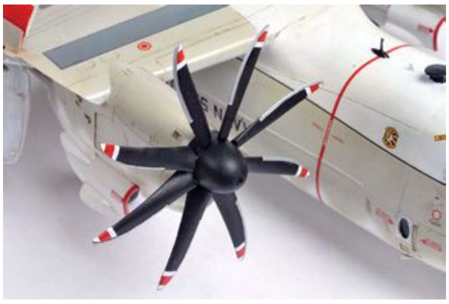
The front door was originally left open.

At this point, it became clear that I has glued the outboard vertical stabilisers on upside down!

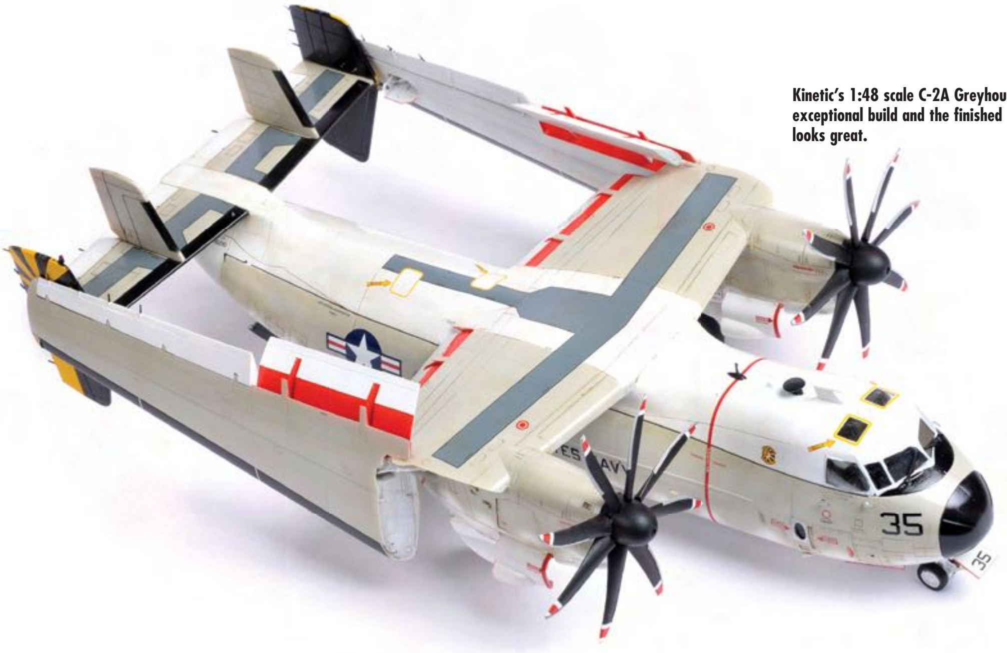
Wheel well and wing fold detail may be seen in this view.

The model looks particularly striking with its black and yellow tail surfaces and red sections beneath the flaps.





The eight-bladed propeller assembly was chosen for this project.



Kinetic's 1:48 scale C-2A Greyhound is an exceptional build and the finished model looks great.

MODELSPEC

Kinetic Model Kits 1:48 Grumman C-2A Greyhound.
Item No. K48025

Paints and Finishing Products Used:

Xtracolor Enamel - FS 16440 Light Gull Grey; FS 17875 Insignia White.

Humbrol Enamel – 220 Italian Ferrari Red.

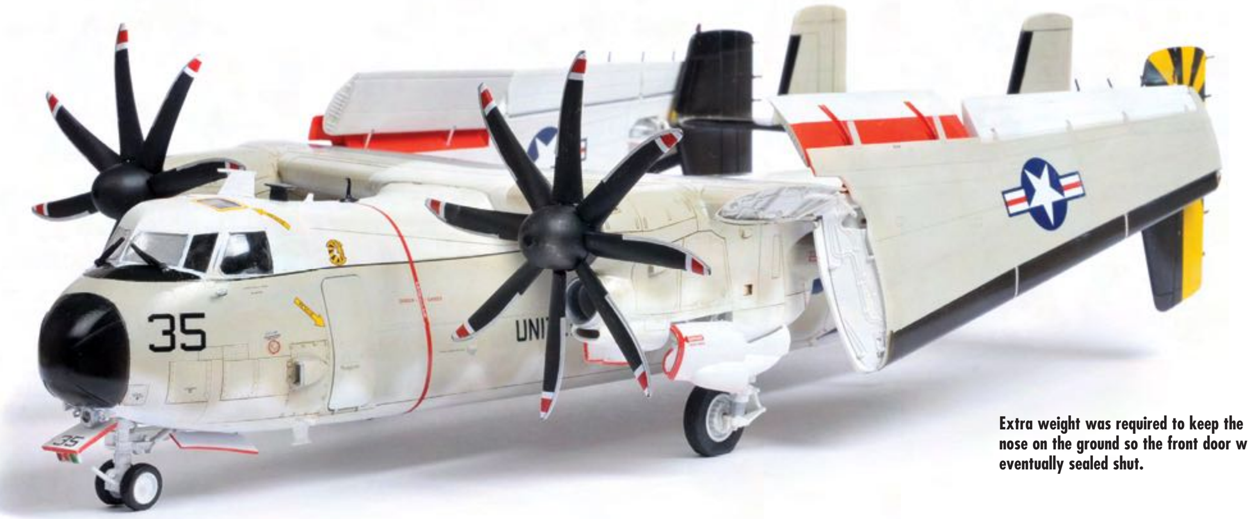
⊕ Good surface detail; Nice cockpit, cabin and wing fold detail; Nicely printed decal sheet; Clear transparencies

⊖ Some vague instructions around the rear ramp upper door fitting and the lower fuselage antenna.

Rating: 8 out of 10

Kinetic Model Kits are available online from Lucky Model www.luckymodel.com

> ***"The kit is an exceptional build and the finished model looks great."***



Extra weight was required to keep the nose on the ground so the front door was eventually sealed shut.

painting. The final assembly includes the outer wings and the very large flaps. The wing fold parts contain enough detail for the average modeller but I can see the super detailers going to town in this area.

All seams were filled and sanded prior to painting. The edges of the flaps need the most filling and sanding work. At this point I would dry fit the inner flaps against the fuselage as I found I needed to trim them a bit to make the fit in the dropped position without interfering with the fuselage too much.

The rear ramp makes up very nicely but this is where I found the instructions to be very vague. There was no mention of the upper ramp door being fitted in the closed position although it is quite obvious how to fit it. The placement of the three part door in the open position is very vague when you look at the instructions and required me to look at walk around photographs on the web to work this out.

I like the three part wheels supplied in the kit. These allow you to paint the parts individually assemble and touch up the wheel seam with black or rubber coloured paint. No masking is required, neat clean and simple. The wheel wells have a good level of detail and may be detailed further with fine wire to add hydraulic line details if the modeller wishes.

Painting is a major task due to the size of the model. The kit was finished in Xtracolor enamel paints - FS 16440 Light Gull Grey upper surfaces and FS 17875 Insignia White lower and flight control surfaces.

The tail fins were painted in gloss black prior to applying the decals. The decals went on very nicely and snuggled down well into the detail very well. The most difficult decal to be applied was the pinstripe between the white and grey demarcation line.

The undercarriage went in without a hitch and it was at this stage I realised that I probably did not have enough weight in the nose as it was only just sitting on the nose gear and I still had the wings to add in the folded position, which would move the centre of gravity further aft and probable cause the kit to sit on its backside.

I fitted the folded wings, which I had left to almost last as I was worried about fragility, but I need not have been concerned. I super glued the main fold attachment on the outer wings to the slot on the inner wing fold bulkhead after sliding the outer wing stay attachment onto the fin attachment and allowed these to set. I noticed at this point the folded wing join was a solid construction even before fitting the fold brace.

The kit then sat on its tail requiring me to add twice as much weight as I had earlier fitted to the front of the cabin just behind the cockpit. I would have needed less if I could have got it in the nose. I also then had to close the forward entry door, which fortunately proved to be a good fit.

The modeller has a choice in propeller fit - either the original four blade propeller or the later eight blade propeller with the large spinner. I tried both before choosing the later eight blade assembly which looks much meaner. Kinetic supply a really nice set of decals for the prop tips which saves a lot of painting and masking.

The only remaining issue was the vague instruction around the fit of the lower antennas and strobe light, which forced me to review many reference photographs and walk around photos to accurately position them.

The kit is finished in the grey and white scheme as Bu.No. 162161 belonging to VRC-30 "Providers" whilst on board the carrier USS Ronald Reagan in 2010.

CONCLUSION

Kinetic has delivered an accurate and nicely detailed 1:48 scale Greyhound. It looks impressive and has an exception wing fold.

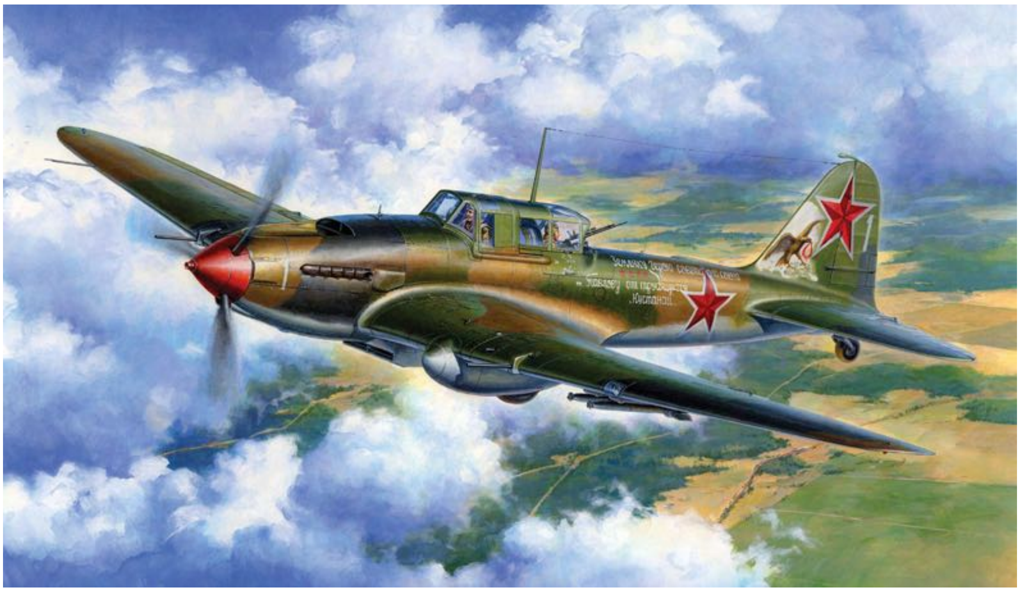
However, Kinetic needs to improve on some of their instructions, as there were a few vague assembly directions for this kit.

Even so, the kit is an exceptional build and the finished model looks great.•

STALIN'S ARROW

Part One – Building the Test Shot

A test shot of Tamiya's all-new 1:48 scale Il-2 Shturmovik landed unheralded on the Editor's doorstep recently. Do you think he could resist building it straight away?



The box art from Tamiya's all-new 1:48 scale Il-2 Shturmovic

The Ilyushin Il-2 Shturmovik was a heavily armed and armoured Soviet ground attack aircraft.

The original production version had a crew of one, but a rear gunner's position was added following appalling losses in the first months after Operation Barbarossa. This hybrid version, using the same wings as the single-seater, suffered from pitch stability problems due to the altered centre of gravity, especially during take-off and landing. Nevertheless, the type entered front line service in October 1942, and the original wing design did not change until late 1943. This variant is often dentified as the Il-2m

The Il-2m3 was the definitive version of the Shturmovik. It could be distinguished from earlier variants by the 15 degree rearward sweep of the wings. This wing reconfiguration compensated for the shift in the centre of gravity caused by the addition of the rear gunner's position. The Il-2m3 type entered service late in 1943.

It is interesting to compare the Shturmovik with German aircraft designs in the latter part of World War Two. At a time when the Luftwaffe was introducing such groundbreaking technical features as radar, ejection seats, jet engines and remote guided weapons; the Shturmovik was crude by comparison. In fact, by any standards the Shturmovik was an unsophisticated aircraft. Creature comforts were non-existent - the rear gunner was not even supplied with a seat. He (or she) simply rested against a leather sling!

Nevertheless, the Shturmovik was a tough, manoeuvrable aircraft that was extremely well suited to its ground attack role. It could be equipped with a variety of weapons including rockets, bombs and anti-tank guns capable of killing even the fearsome Tiger tank.

Comparison of strategies also reveals fundamental differences. German fighter pilots saw themselves as "knights of the sky". Air-to-air combat was often considered to be the only honourable endeavour. German fighters continued to down Soviet aircraft in staggering numbers right to the last year of the war, but Luftwaffe ground attack units were used in a relatively uncoordinated manner.

Stalin, on the other hand, considered that the Shturmovik was as fundamentally important to the Red Army as bread. He personally intervened to ensure that nothing prevented the mass-production of this essential aircraft. The priorities of the opposing sides may be summarised by examining the production figures of specialised Soviet and German ground attack aircraft to 1945. For example, the Henschel Hs 129 (the standard German tank-busting aircraft from 1942) totalled 869 aircraft; while a total of over 36,000 Shturmoviks were produced!

In the end, the Soviet strategies of standardisation and mass-production overwhelmed Germany's high technology weapons.

ANOTHER SHTURMOVIK?

Who says history never repeats?

I recall back in 2002 when Tamiya revealed that they would be releasing a new-tool 1:48 scale Messerschmitt Me 262, there were howls of anguish that we didn't need another Me 262; that the Dragon kit was perfectly good; and why didn't Tamiya give us an (insert your personal favourite aircraft here) instead?

➤

Not surprisingly, when Tamiya's kit was released it was better detailed, had more options and was far easier to build than Dragon's offering.

Fast forward to the end of 2002 and there were even louder complaints when Tamiya's forthcoming 1:48 scale P-47D Thunderbolt was announced. What was wrong with the Hasegawa kit? Surely Tamiya should release an (insert your personal favourite aircraft here) instead.

Of course, Tamiya's resulting family of P-47 Thunderbolts are now acknowledged to be some of the best 1:48 scale plastic kits ever released.

The same pattern repeated itself with Tamiya's 1:48 scale Heinkel He 162 A-2 in 2006, and the A6M5 Zero in 2008, but once again in each case Tamiya delivered a kit with clever engineering, great detail and effortless construction - clear improvements over their predecessors.

So here we are again on the same old road. Surely we don't need a new 1:48 scale Il-2 Shturmovik...

Or do we?

Let's see if what Tamiya has up its sleeve with this latest release.

TAMIYA'S NEW 1:48 IL-2 IN THE BOX

Tamiya sent a set of test-shot sprues for their forthcoming 1:48 scale Ilyushin Il-2 Shturmovik, due for release in June 2012.

The kit comprises 156 parts in grey plastic; ten parts in clear; one polythene cap and decals for three marking options.

This is an all-new model that has nothing in common with the tooling of the 1997-vintage Accurate Miniatures Il-2m3 Shturmovik.

Tamiya's new release is the definitive variant of the Shturmovik with the 15 degree wing sweep, often referred to as the Il-2m3, or sometimes the Il-2 AM-38 F. Tamiya's version represents a 1943/44 production machine with wooden rear fuselage and metal wings.

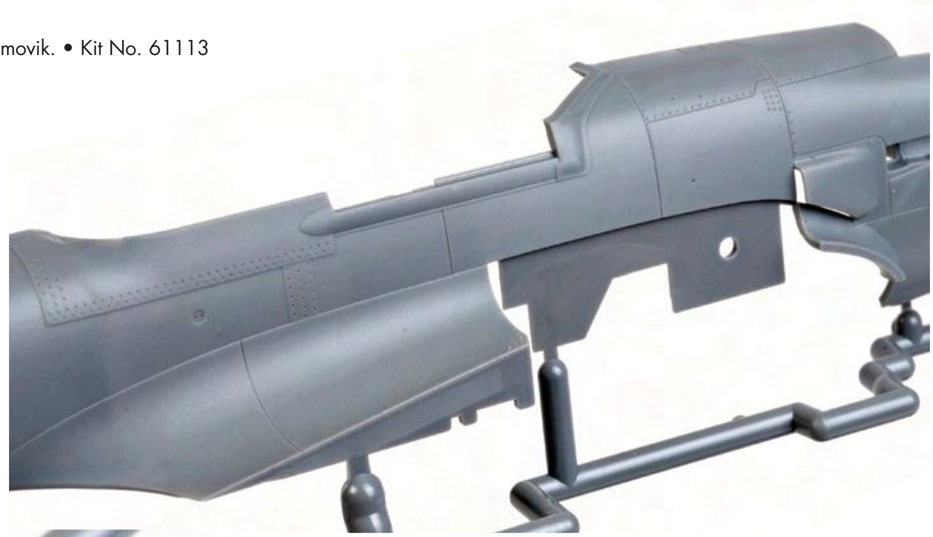
Moulding quality is perfect. Surface detail is some of the best that I have ever seen in 1:48 scale, mainly by way of very finely recessed panel lines, with some subtly raised hinge lines and selective rivets on the wings, open ejector ports and convincing raised fabric strips on control surfaces. The panel lines are comparable to scaled-down versions of the surface detail on Tamiya's benchmark 1:32 scale Spitfire and Mustang kits.

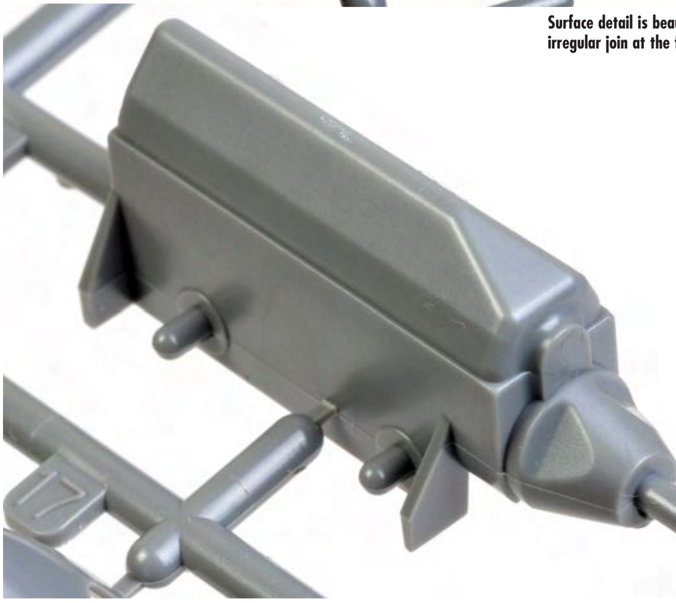
In the accompanying photographs, please note that I have angled the parts to amplify the effect of the panel lines, and gotten as close as possible with my macro lens for some detail shots - they are much bigger than life size on the page. The detail is extremely subtle when viewed by the naked eye under normal room lighting.

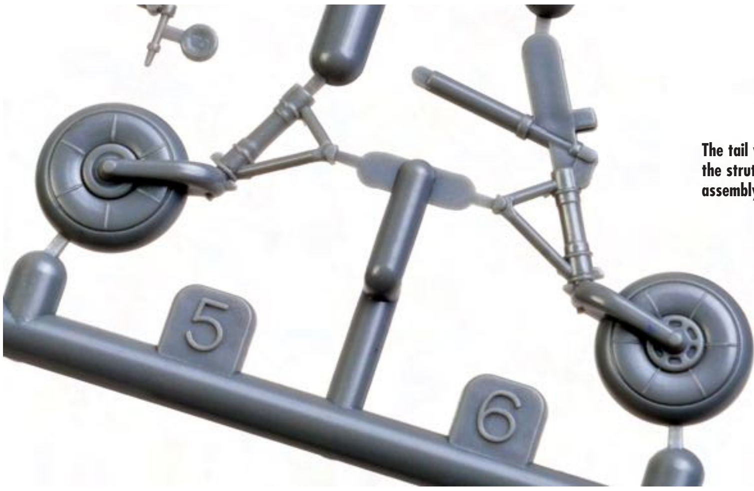
The fuselage halves are moulded full-length, which will come as a relief to anyone who has struggled with Accurate Miniatures' separate nose parts. Tamiya's kit also includes a basic engine block shape that adds structural rigidity to the forward fuselage and allows the inclusion of detailed ducting running from the top of the cowling deep into the engine bay.

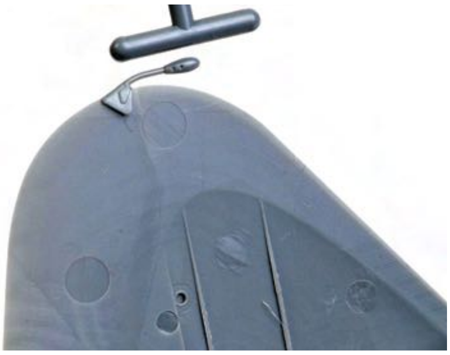
The front of the fuselage, with its distinctive scoops overlapping the spinner, is moulded to scale thickness.

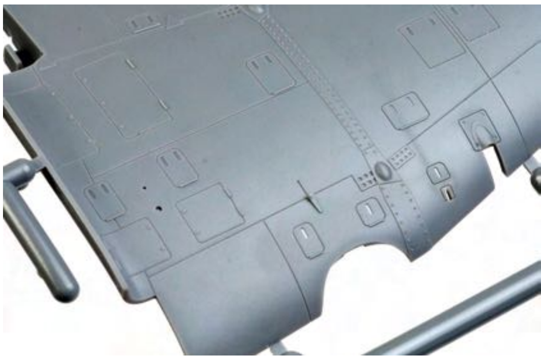
Detail is excellent throughout. The cockpit features an instrument panel with decal dials, a number of separate quadrants and knobs, a well-rendered control column, side console and


Surface detail is beautifully crisp and fine. Note the irregular join at the fuselage for the wing root.

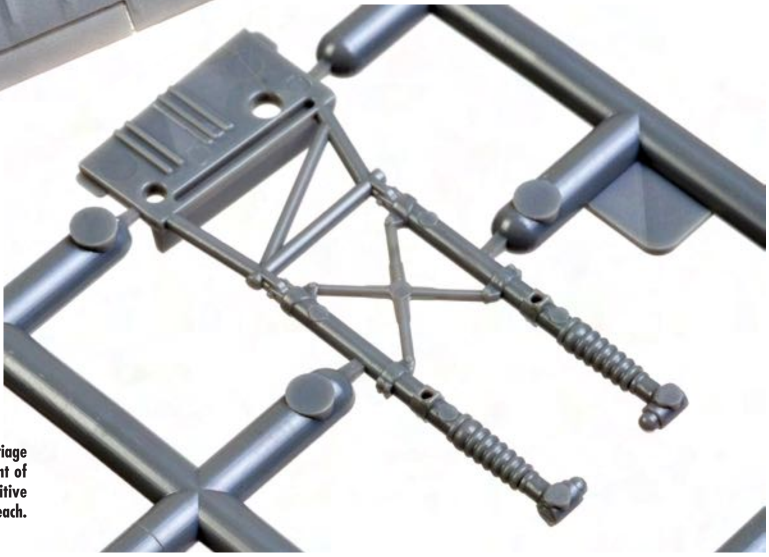

This partial engine adds rigidity to the entire nose.


The tail wheel is moulded to the strut, but the two-piece assembly looks great.

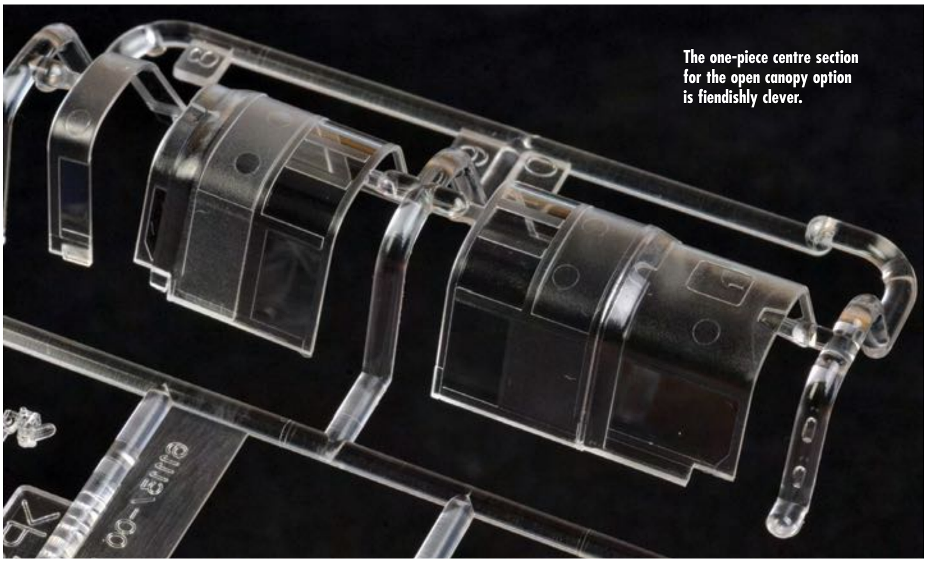

The delicate mass balance is moulded to the top of the rudder. You might want to cut this off cleanly before construction commences to avoid mangling it while handling the model during construction.


The surface detail on the wing is a rich combination of raised and recessed.

Fabric surface texture is subtle – very nice indeed.



The main undercarriage legs locate to the front of the wing with two positive locating pins each.



The one-piece centre section for the open canopy option is fiendishly clever.

Seated crew figures are supplied for the front and rear cockpits.

subtle detail moulded to the pilot's seat.

The mid-fuselage fuel tank is split horizontally, not vertically, so filling and sanding (if required) will be easier.

I like the deep sidewall detail on the three-piece tub insert for the rear gunner's position. The gunner's seat / sling will click into place and swing down into position without the need for glue. This flexibility will be appreciated if you are planning on using the gunner figure.

The 12.7 mm Berezin UBT machine gun with its ammo belt and mount look great.

Radiator and wheel well detail is beautifully reproduced with no visible ejector pin marks.

The five rear-facing exhaust stacks are moulded as one piece, with the rearmost stack provided separately. The ends of the five stack pieces are moulded solid but the more prominent single rear stack has been moulded hollow.

The shape of the spinner looks accurate, and the detail of the splined tip is impressive. The propeller blades look good too. A polythene cap is used to fit the propeller assembly.

The outer sections of the wheel well are moulded to the bottom of the wing, with only the front caps supplied as separate parts. The main landing gear legs are trapped by these front caps, which should result in a strong bond and perfect alignment.

The undercarriage doors feature deep structural detail on the insides, once again free of any ejector pin marks. The wheels are gorgeously detailed. The tail wheel assembly is split into two halves. The tyre detail on the small parts looks fantastic.

All control surfaces are moulded shut and neutral. Trailing edges are razor sharp. Actuators are supplied as delicate separate parts. The rudder balance horn is moulded to one side of the rudder.

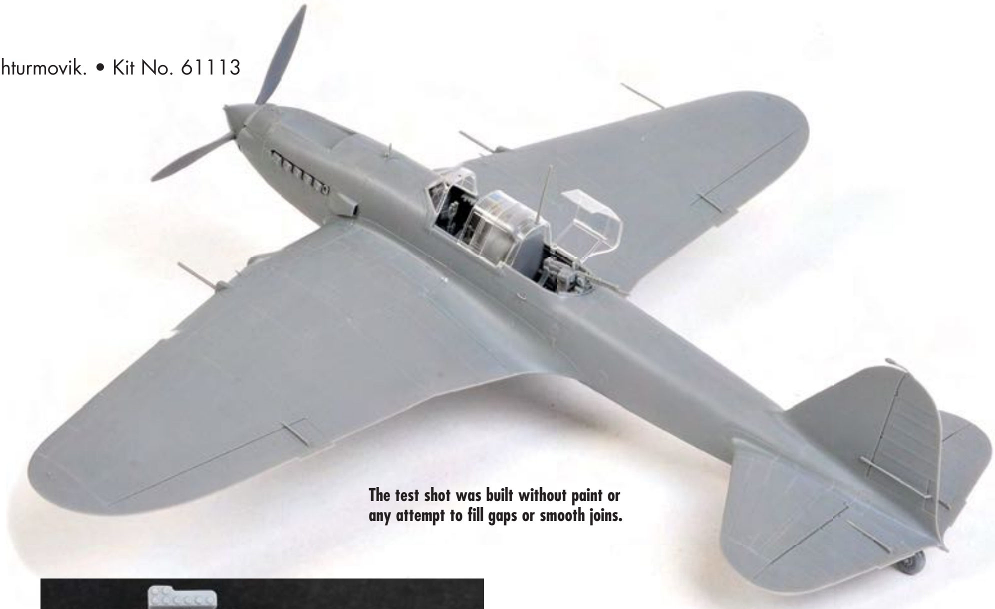
Two sets of FAB-100kg and FAB-200kg bombs are included. Four RS-132 rockets are provided too, with separate fins and two alternative styles of mounting rail.

Clear parts are thin and completely free from distortion. Alternative canopy parts are supplied for closed or open configurations. The open canopy provides a single part cleverly representing the sliding section over the top of the centre section. This completely avoids the problem of over scale thickness of multiple overlapping plastic parts compromising a realistic finish.

The three styles of rear canopy may be posed open. They are moulded with two locating tabs that may be cut off if you would rather display the rear canopy closed. Please note that the ejector pin circles in the photos are on the inside of the clear parts, in areas that will be painted on the outside. They will not be visible on the finished model.

By the way, Tamiya advised that the moulds for the clear parts in my sample had not received their final polishing, so the production parts will be even better than these.

Tamiya has also supplied seated pilot and rear gunner figures. The gunner is made up from four parts and is squatting on his sling in the rear cockpit. His facial expression is suitably miserable considering his circumstances. The figures included in my sample are very early test shots and do not necessarily represent the moulding quality of those that will be in the production kit.



The test shot was built without paint or any attempt to fill gaps or smooth joins.

TEST SHOT CONSTRUCTION – STEP BY STEP

Tamiya kindly sent two test shots. I decided to build the first one straight from the sprues with no additions or modifications. Markings will be supplied for three aircraft, but the decals were not available at the time I built my model.

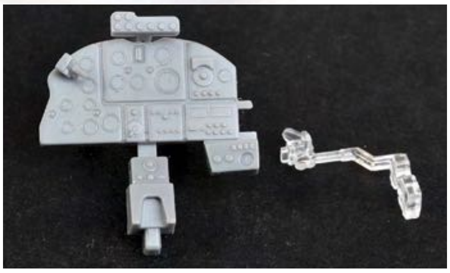
Similarly, a sheet of self-adhesive canopy masks will be included with the production kit, but they were not ready at this time.

Sprue attachment points were removed with a sharp hobby knife and sanding sticks, but no other work was done to the plastic parts. Once the parts were glued together, there was no sanding, scraping, filling or any other form of correction or improvement.

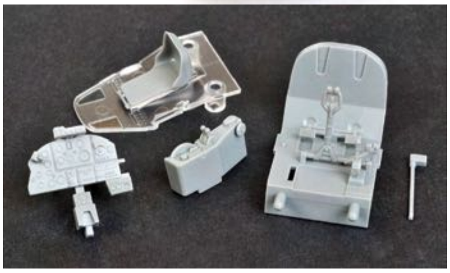
Tamiya Extra Thin Liquid Cement was used for the larger assemblies, while smaller pieces were secured with Revell Contacta cement.

As always, familiarise yourself thoroughly with the instructions before you start cutting parts from the sprues. The only place that I deviated from the suggested construction sequence was delaying the fitting of the delicate rudder, aileron and elevator actuators until the very last step.

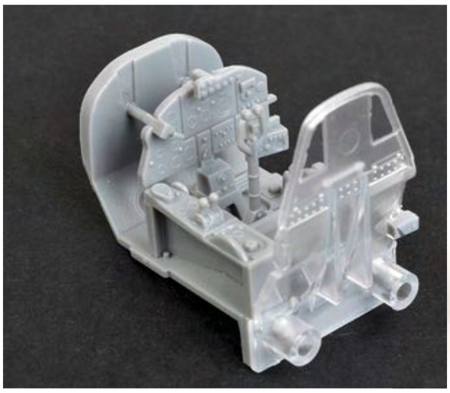
Tamiya masking tape and plastic clamps were used to hold some of the major sub-assemblies while the cement dried.



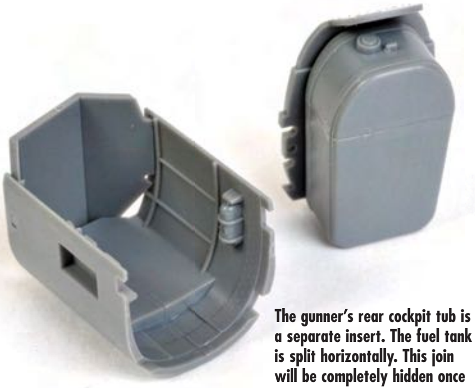
The instrument panel features raised bezels and buttons. The production kit will supply decals for the dials and other details. This decal / plastic combination has looked very effective in previous Tamiya releases. A clear gunsight is offered as an alternative part.



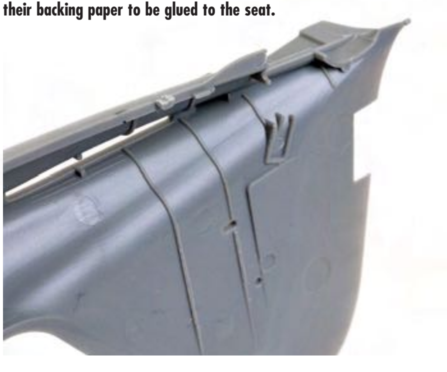
The various cockpit sub-assemblies go together quickly, especially when they aren't painted! Once again, decals will be provided for the harness straps in the production kit. These may be cut out along with their backing paper to be glued to the seat.



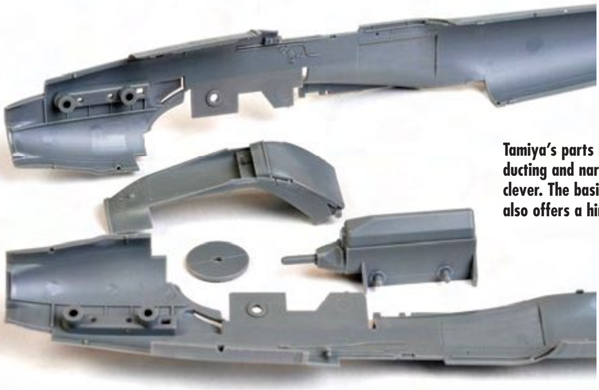
The forward cockpit is suitably busy once it is assembled. Don't worry about the ejector pin circles on the clear pilot's armour – these will be hidden by paint and the fuel tank.



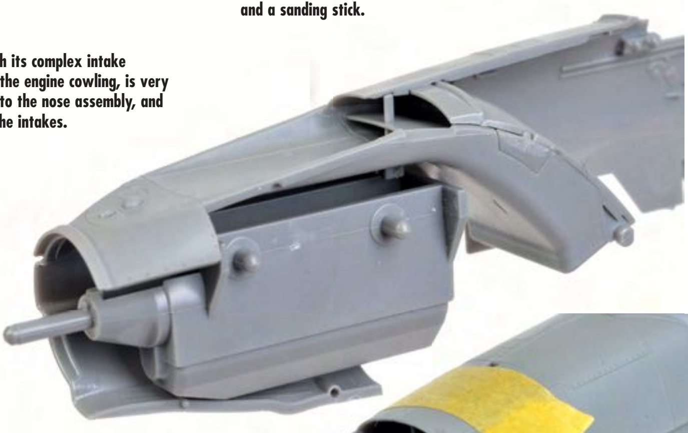
The gunner's rear cockpit tub is a separate insert. The fuel tank is split horizontally. This join will be completely hidden once the tanks and the cockpit are fitted inside the fuselage.



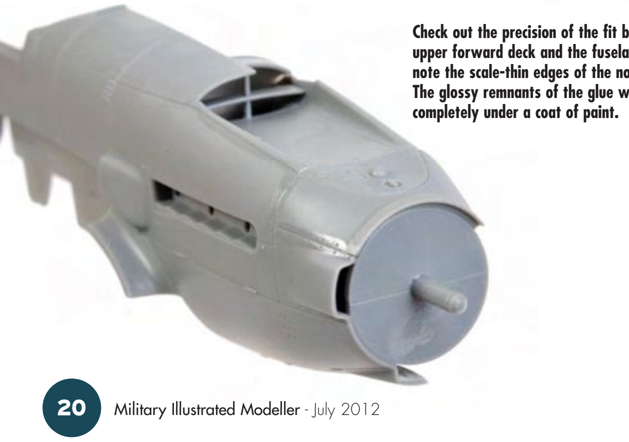
The sprue attachment points for the larger parts are moulded to the mating edges of the plastic. This reduces the risk of scarring the outer surface of the parts when cutting them from the sprues. We can see the raised residue from one of these attachment points on the bottom of the fuselage. This was carefully removed with a sharp hobby blade and a sanding stick.



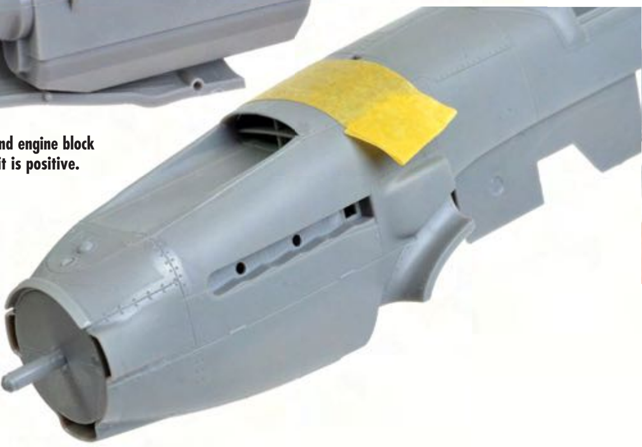
Tamiya's parts breakdown of the nose, with its complex intake ducting and narrow intakes at the front of the engine cowling, is very clever. The basic engine block adds rigidity to the nose assembly, and also offers a hint of interior detail behind the intakes.



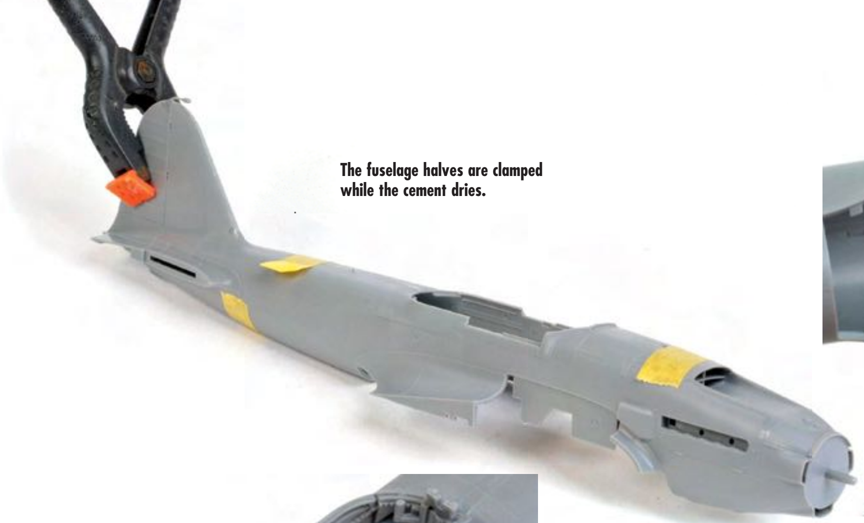
The intake ducting and engine block glued in place. The fit is positive.



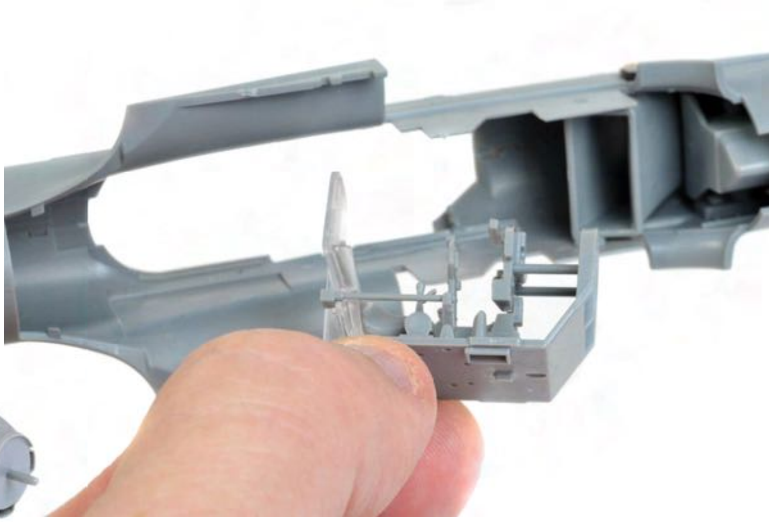
Check out the precision of the fit between the upper forward deck and the fuselage. Also note the scale-thin edges of the nose scoops. The glossy remnants of the glue will disappear completely under a coat of paint.



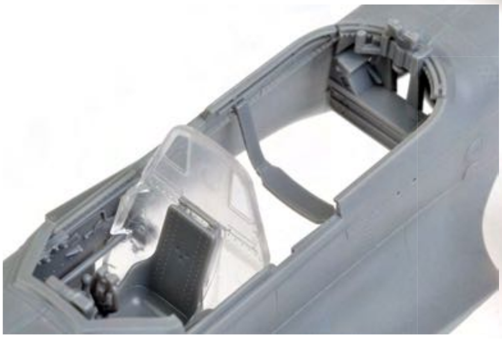
The fit of the nose parts is equally good on the other side. The fit and ease of assembly of this area stands in stark contrast to the painful memories of building the Accurate Miniatures nose.



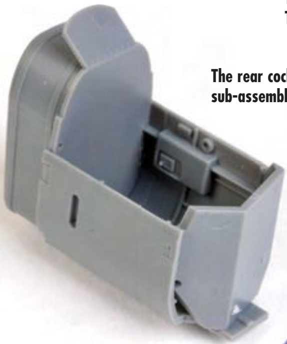
The fuselage halves are clamped while the cement dries.



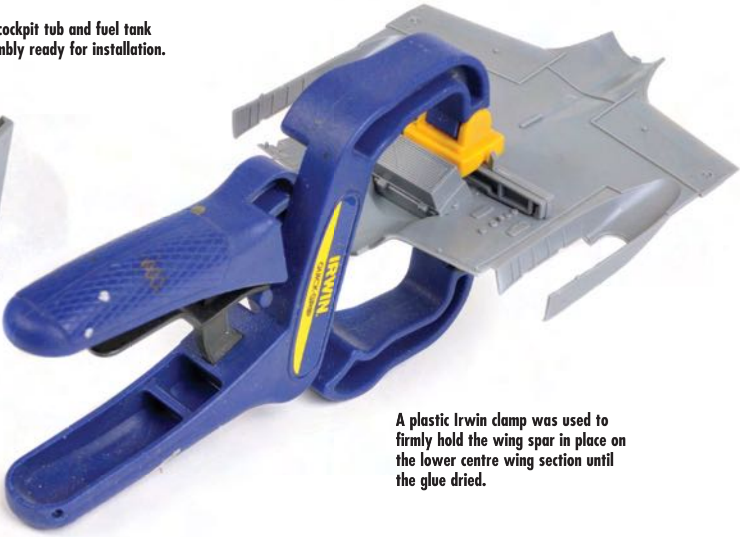
The front cockpit is fed up through the big gap in the bottom of the fuselage then glued in place. The open end of the cowl intake ducting may be seen in this view.



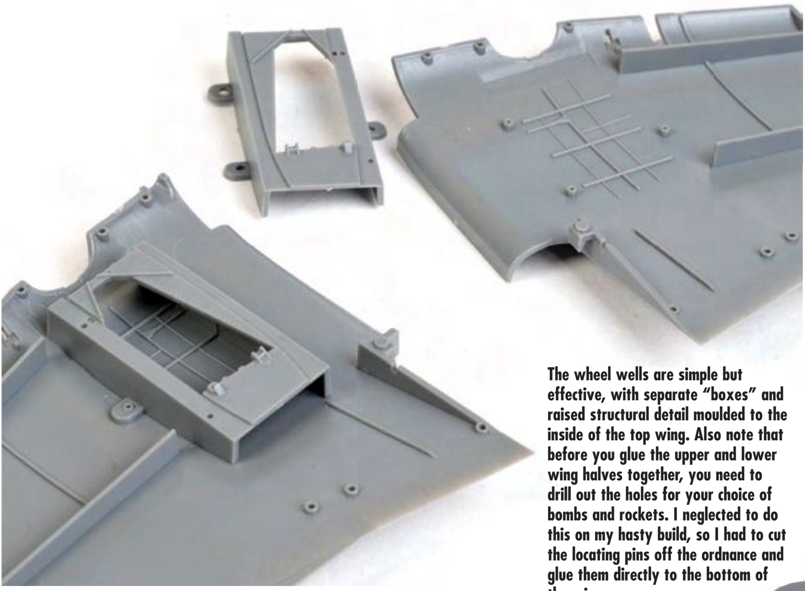
The rear machine gun mount and the gunner's strap are fitted at this point too. The strap is located via shallow holes on the inside of the fuselage. The instructions advise that the strap should be fitted now, before the rear fuselage tub is installed. I recommend that you follow this advice. A delicate touch is needed for the installation of this part and the extra elbow room (or, more accurately, tweezer room) is helpful for manoeuvring the strap before the tub is fitted.



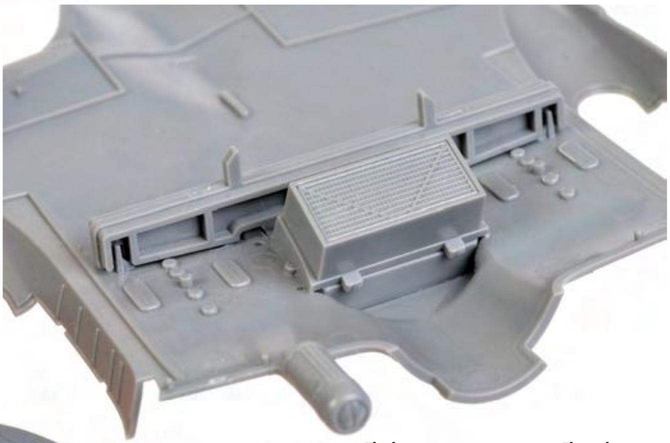
The rear cockpit tub and fuel tank sub-assembly ready for installation.



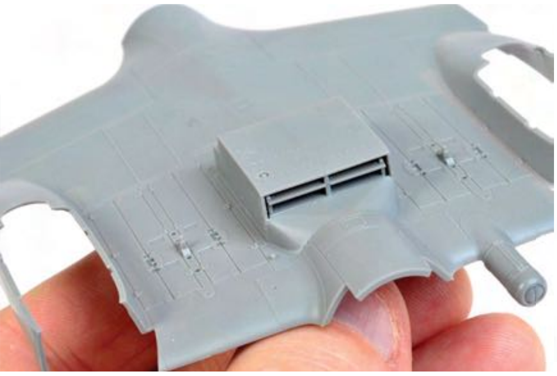
A plastic Irwin clamp was used to firmly hold the wing spar in place on the lower centre wing section until the glue dried.



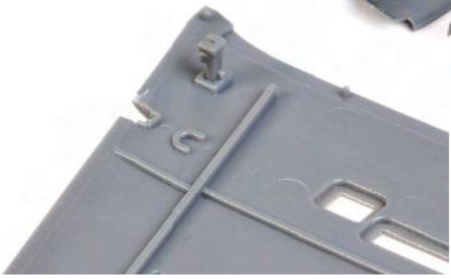
The wheel wells are simple but effective, with separate "boxes" and raised structural detail moulded to the inside of the top wing. Also note that before you glue the upper and lower wing halves together, you need to drill out the holes for your choice of bombs and rockets. I neglected to do this on my hasty build, so I had to cut the locating pins off the ordnance and glue them directly to the bottom of the wings.



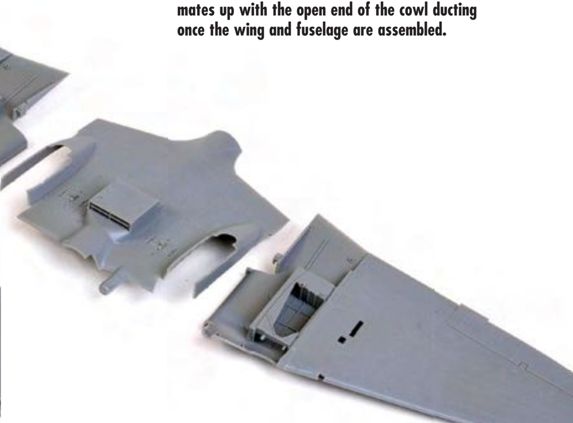
The lower centre wing section. The radiator mates up with the open end of the cowl ducting once the wing and fuselage are assembled.



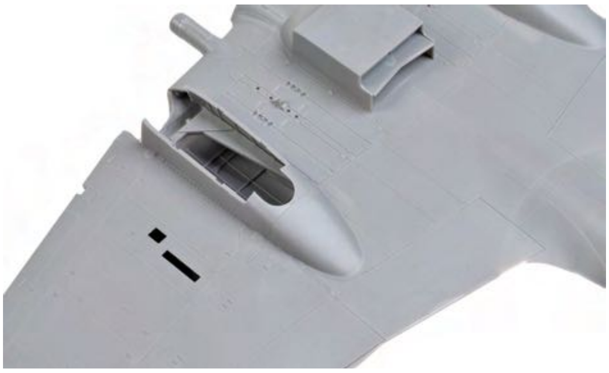
Radiator intake splitter detail looks good at the front and the rear.



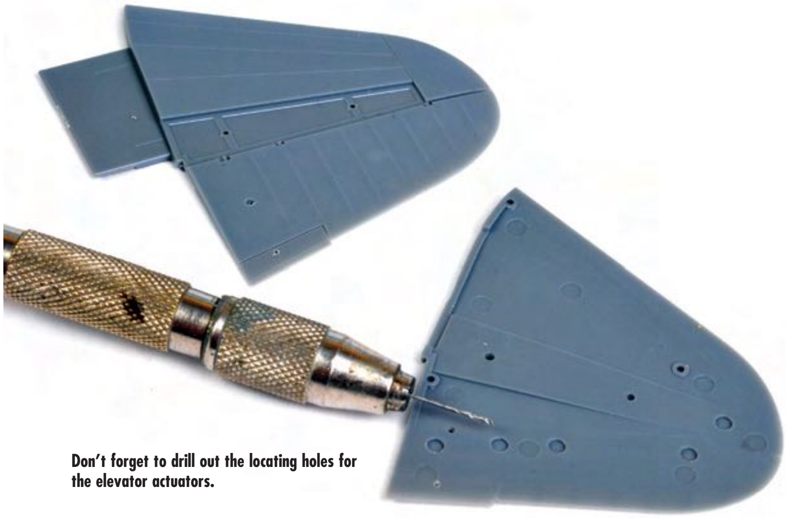
Tamiya supplies pegs for the front corners of the upper wing halves to ensure the precise thickness of the assembled wing.



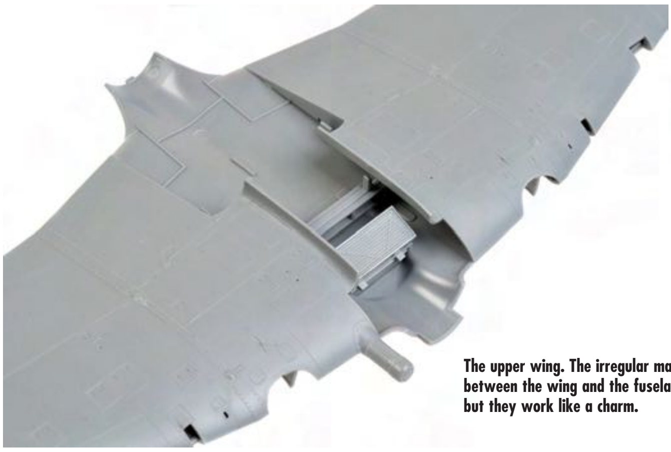
Here are the three wing sub-assemblies before they were glued together. Note that the tops of the outer sections overlap the centre wing section, ensuring perfect dihedral and a robust fit.



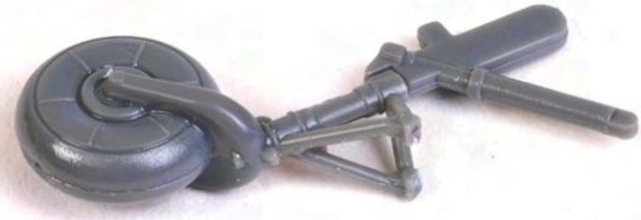
I suppose we should not be surprised to see extraordinarily good fit on a Tamiya kit, but the Il-2 once again had me shaking my head in wonder and admiration. The fit of the wing sub-assemblies is perfect. Note that the wheel well nacelles are moulded to the lower wings.



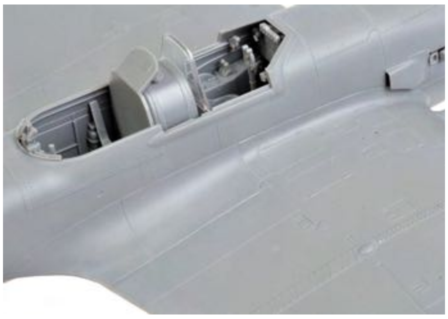
Don't forget to drill out the locating holes for the elevator actuators.



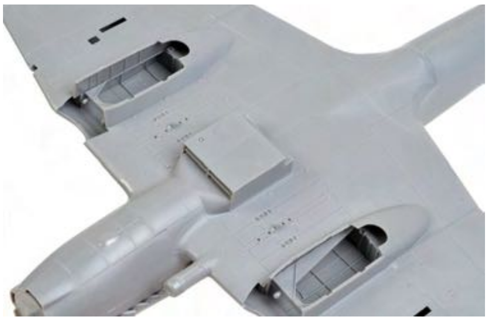
The upper wing. The irregular mating surfaces between the wing and the fuselage look complex, but they work like a charm.



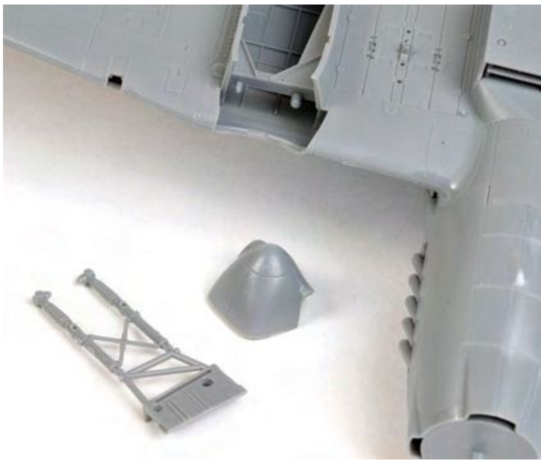
The two-part tail wheel assembly looks great with its large open oleo scissor.



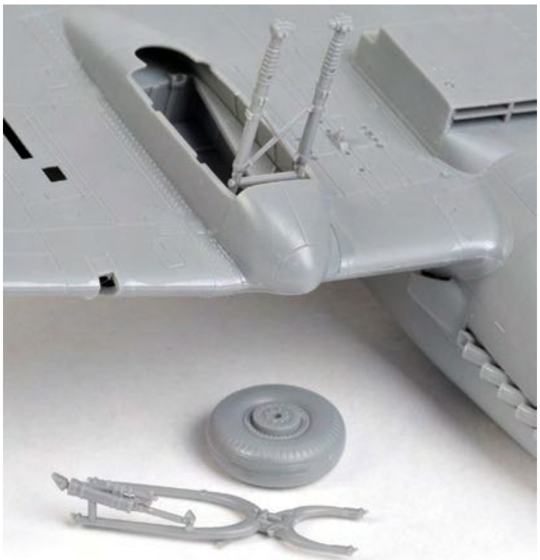
Can you pick the wing root join? Perfect. The wing virtually clicked into place and needed nothing more than a line of Tamiya Extra Thin Liquid Cement brushed along the join lines to draw the parts together permanently.



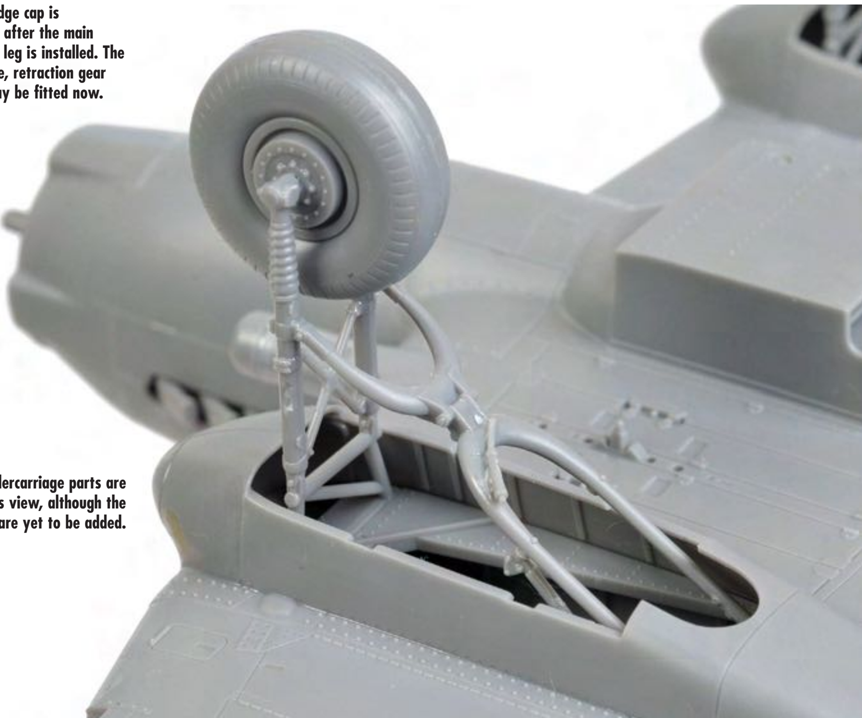
The joins at the bottom of the fuselage were just as good.



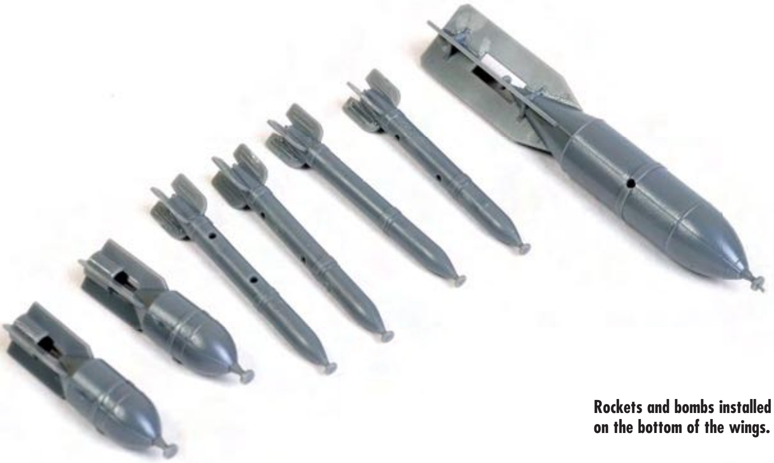
The main undercarriage is cleverly designed to fit over large locating pins at the front of the wheel wells. This ensures the correct rake and solid fit.



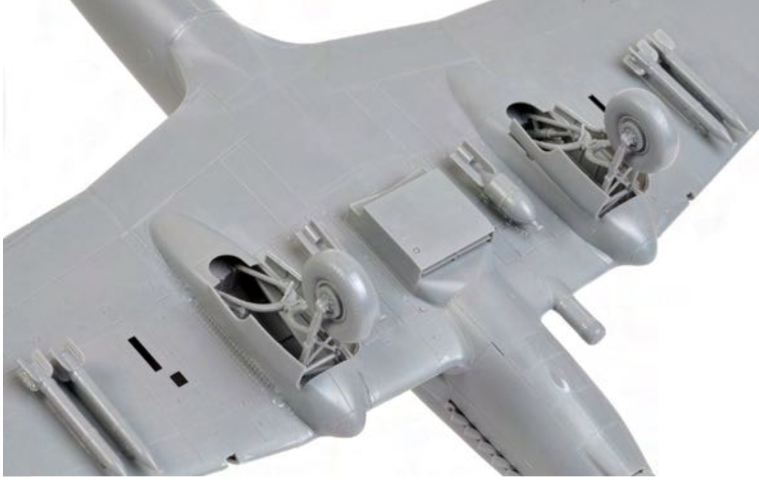
The leading edge cap is glued in place after the main undercarriage leg is installed. The diagonal brace, retraction gear and wheel may be fitted now.



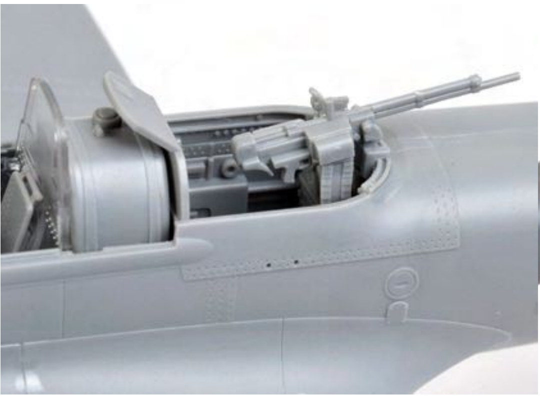
All the undercarriage parts are fitted in this view, although the doors are yet to be added.



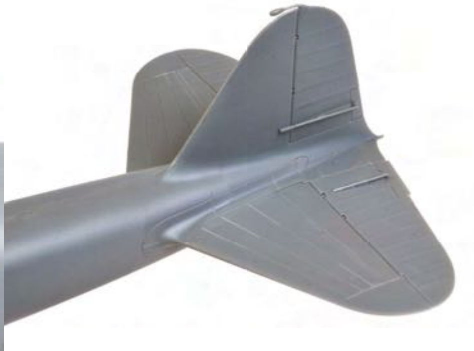
A selection of the weapons included with Tamiya's kit.



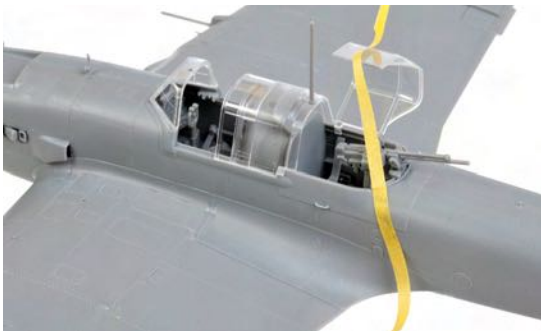
Rockets and bombs installed on the bottom of the wings.



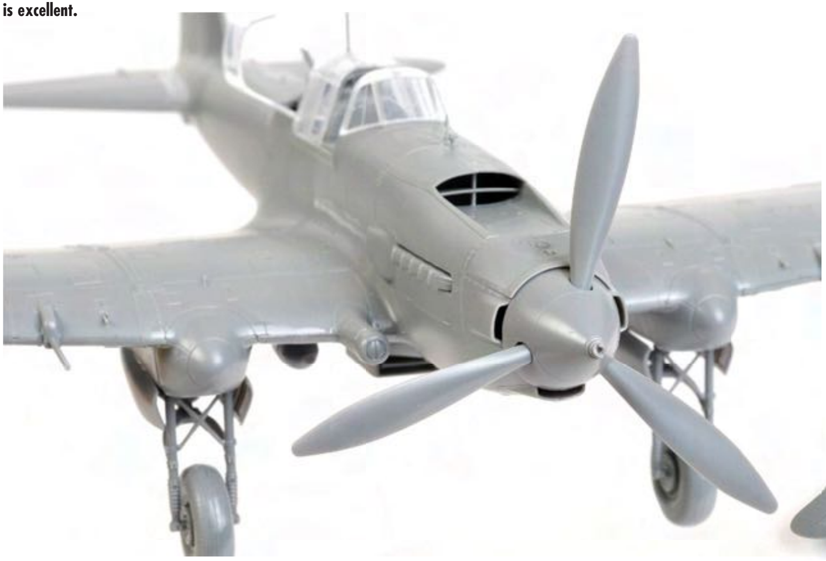
The rear machine gun may be installed after painting. Once again, fit is excellent.



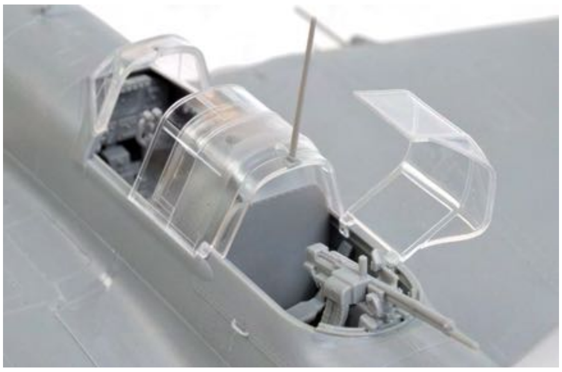
Tail planes and actuators in place. The rudder mass balance is delicately moulded to one of the rudder halves, so care is required when handling the fuselage during construction.



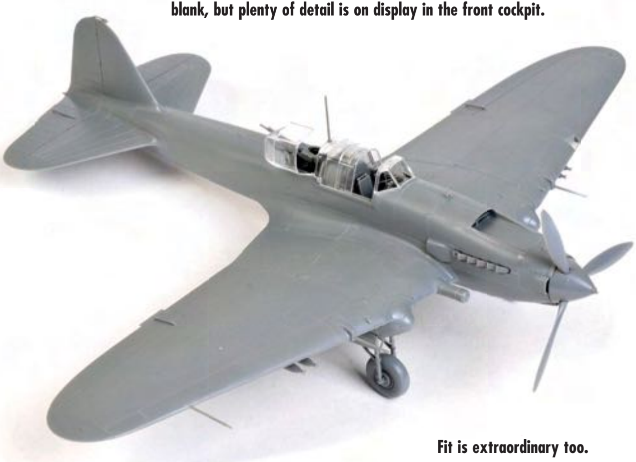
I chose the open canopy option. Once again, don't be concerned about the ejector pin circles on the clear parts. They are on the inside and will be completely hidden by a coat of paint on the outside. The open gunner's canopy was held at the appropriate angle with a narrow strip of Tamiya tape while the glue dried.



The finesse and precision of Tamiya's kit design may perhaps be best appreciated from this angle. Note the crisp thin edges and subtle shapes, all beautifully reproduced. I particularly like the ducting splitters, the intakes at the front of the nose and the splined starter coupling at the front of the spinner.

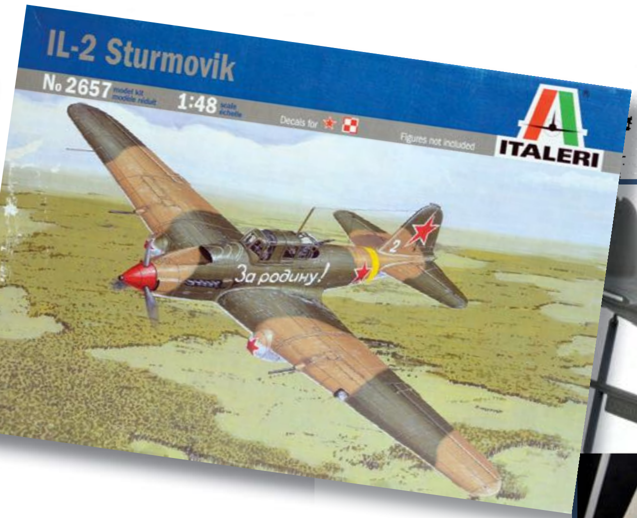


The armour plate at the front of the gunner's cockpit is (correctly) blank, but plenty of detail is on display in the front cockpit.



Fit is extraordinary too.

Tamiya has also captured the shape of the spinner and propeller assembly perfectly. This makes a big difference to the sleek lines of the nose.



The box art of Italeri's 2007 re-packaging of Accurate Miniatures' 1:48 scale Il-2M3.

TAMIYA VS. ACCURATE MINIATURES - SIDE-BY-SIDE

Accurate Miniatures released a series of 1:48 scale Il-2 Shturmoviks from 1997.

Accurate Miniatures released the following variants in 1:48 scale:

- Il-2 Single Seater
- Il-2 Single Seater on Skis
- IL-2 Swept Wing Two-Seater

Although Accurate Miniatures never released a straight-wing two-seater Il-2, Eduard combined the wing from the single-seater with the fuselage of the two-seater to deliver this variant for their 2007 boxing. Eduard's Limited Edition kit also included colour and nickel-plated photo-etched parts. It is no longer available.

A number of resin conversions were also made for the Accurate Miniatures kit, including wooden wings and straight metal wings.

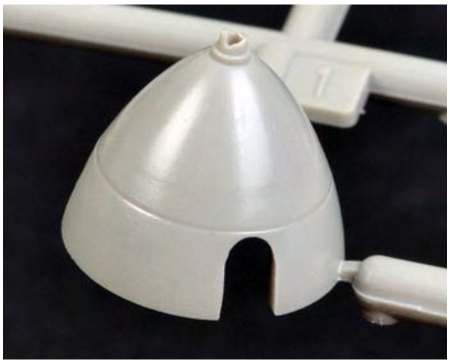
Tamiya's 2012 debut 1:48 scale Shturmovik release is a swept-wing two-seater Il-2.

One question has frequently been asked on HyperScale's Plane Talking Forum - is Tamiya's Il-2 really that much better than Accurate Miniatures' Shturmovik family from the 1990s?

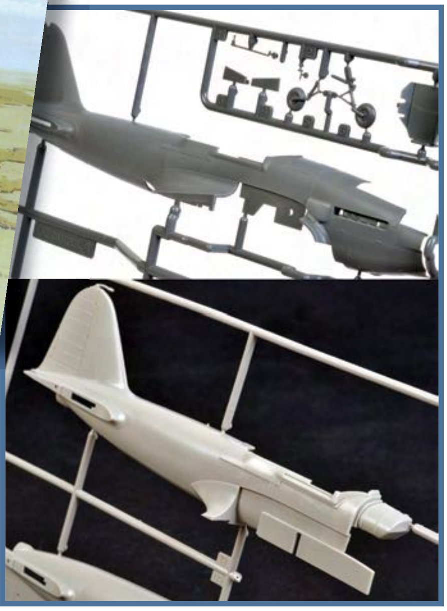
In order to answer this question I have opened up Italeri's 1:48 scale 2007 re-issue of the Accurate Miniatures swept-wing Il-2, sometimes referred to as the Il-2m3 or Il-2 Type 3. This is the same variant as Tamiya's new kit.

Let's take a detailed look at the contents to see the differences between Accurate Miniatures' and Tamiya's 1:48 scale Il-2 Shturmoviks.

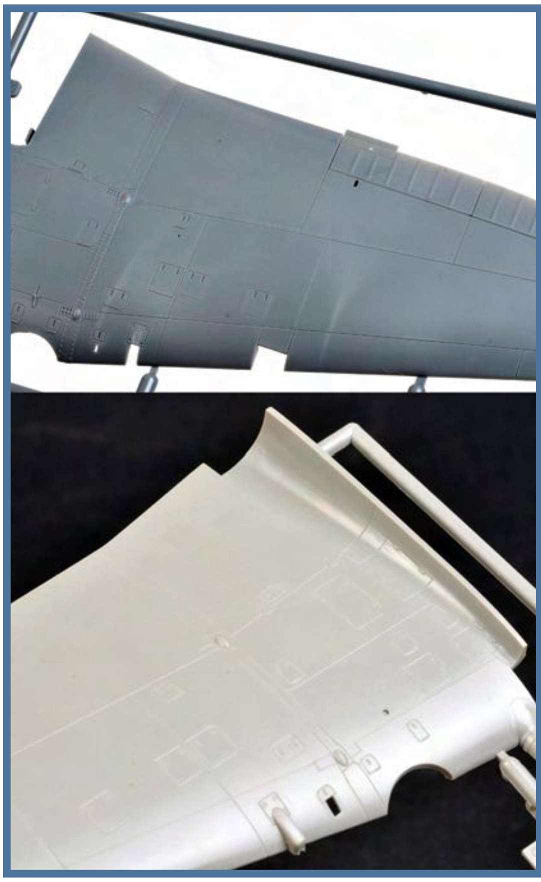
Please note that in the comparison photos on these pages, the parts on the white background are Tamiya's and the parts on the black background are generally Accurate Miniatures'. In the case of the clear sprues, the parts on top are Tamiya, while the parts at the bottom of the photo are Accurate Miniatures.



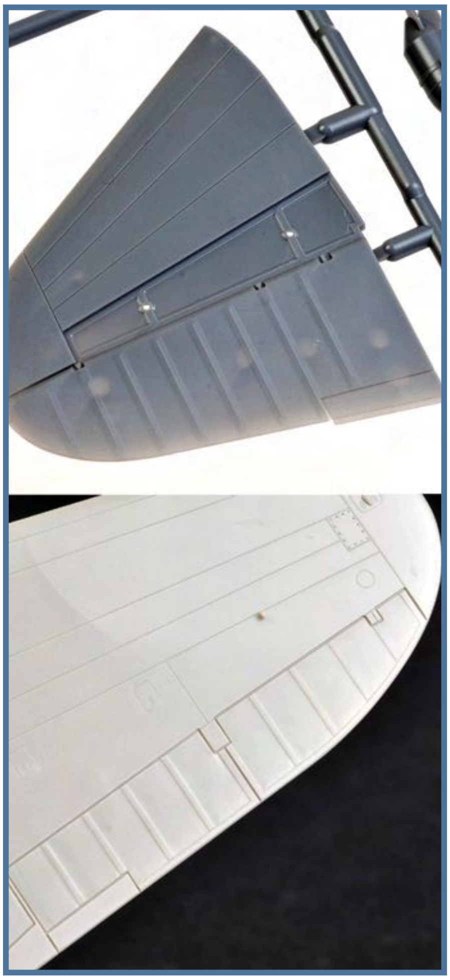
Accurate Miniatures' spinner is noticeably bulbous compared to the real thing.



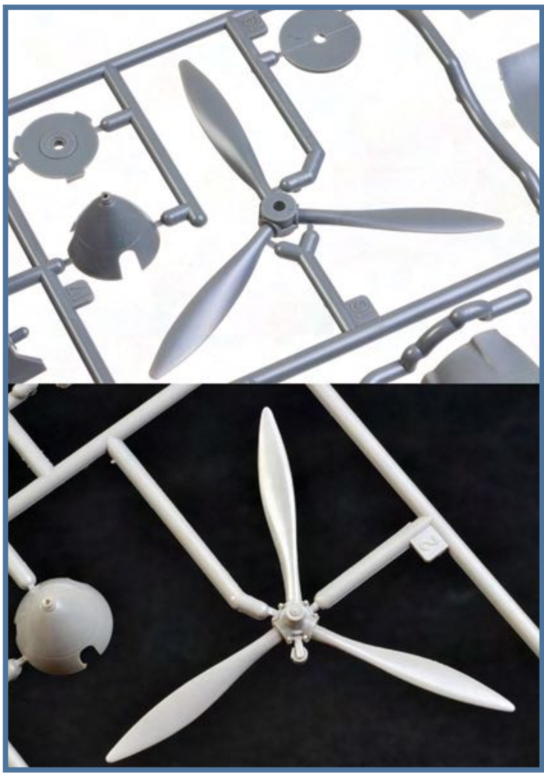
The first obvious difference between the kits is that Accurate Miniatures' fuselage is spilt into separate nose and main fuselage sections. Successfully mating the front and rear sections is one of the most challenging (and painful, I can assure you from personal experience) aspects of building the Accurate Miniatures kit.



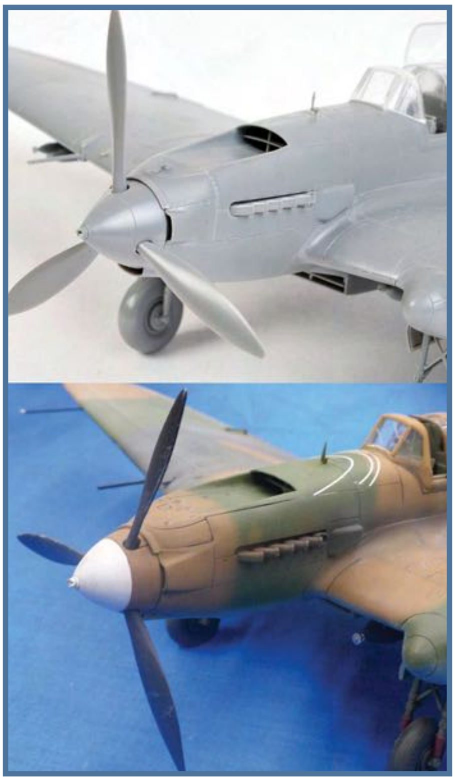
Surface detail on the Accurate Miniatures kit was the best available in 1997, and it still stands up well today. However, Tamiya's crisp combination of recessed and raised surface detail has the clear advantage in 2012.



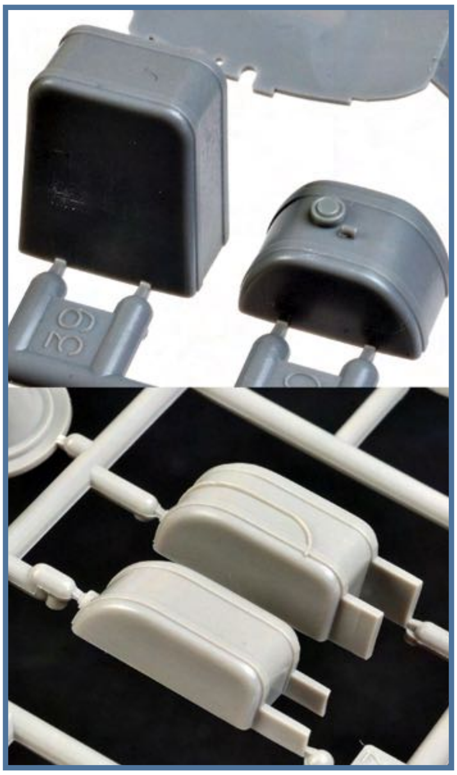
In my opinion, the fabric texture of control surfaces is also better on Tamiya's kit (top photo).



Accurate Miniatures' propeller blades are too narrow and taper even more as they approach the hub (below). Tamiya's propeller blades and spinner (top) are accurate.



The sectional profile of the upper cowl intake is too flat on the Accurate Miniatures kit. Compare the almost flat profile above the ducting of the Accurate Miniatures intake (Calum Gibson's build in the bottom photo) with the smooth curve of Tamiya's. Also note the size and shape of the cheek scoops on either side of the spinner. Once again, Tamiya's looks much more like the real thing.



The fuselage fuel tank is split vertically in the Accurate Miniatures kit. This means that the join will be visible when the part is fitted between the cockpits. Tamiya's join is horizontal, and is effectively below the line of vision once the tank is installed – another thoughtful engineering touch.

MINI MODELSPEC

Tamiya 1:48 scale Ilyushin Il-2 Shturmovik. Kit No. 61113

Products Used:

Olfa Knife Model K B
Tamiya Extra Thin Liquid Cement
Revell Contacta Plastic Glue
Tamiya Tape – 6mm, 10mm and 18mm

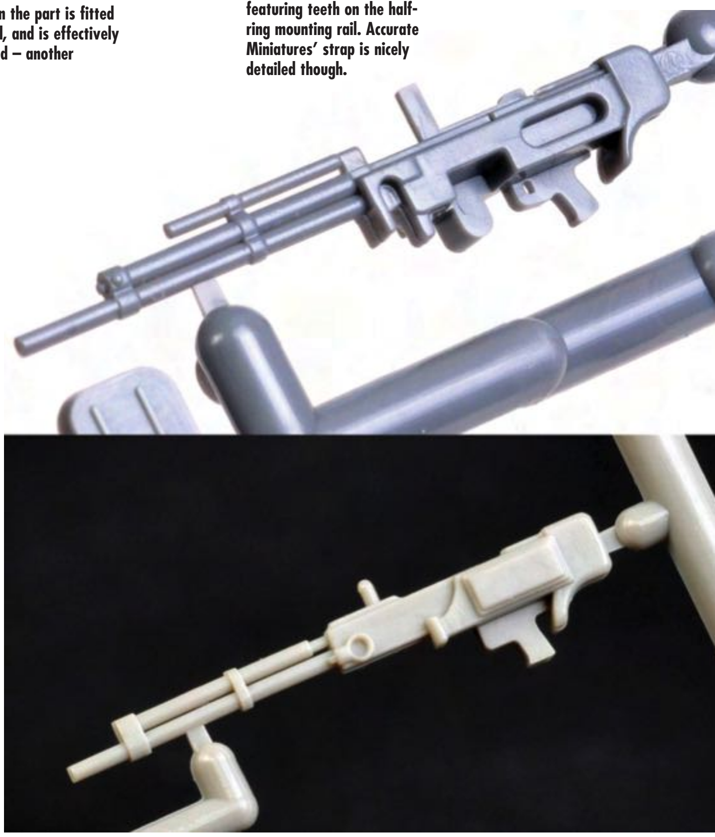
⊕ Superb fit; excellent surface detail; high level of detail; brilliant engineering; useful options.

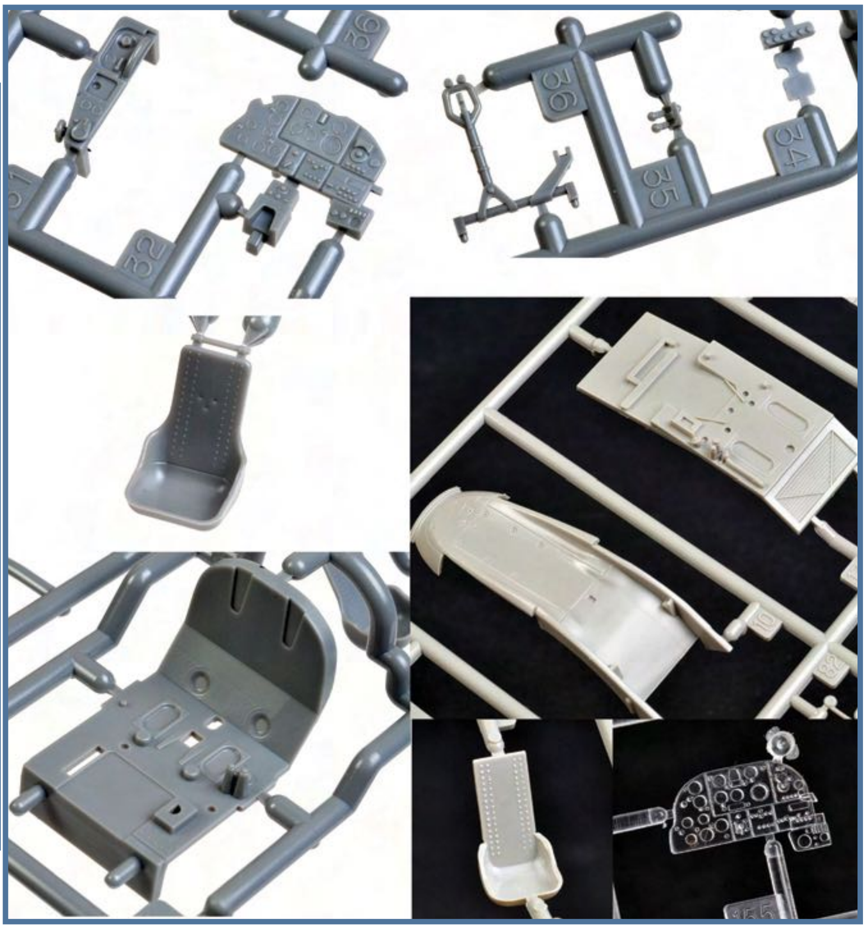
⊖ Nothing found so far.

Rating: 9.5 out of 10

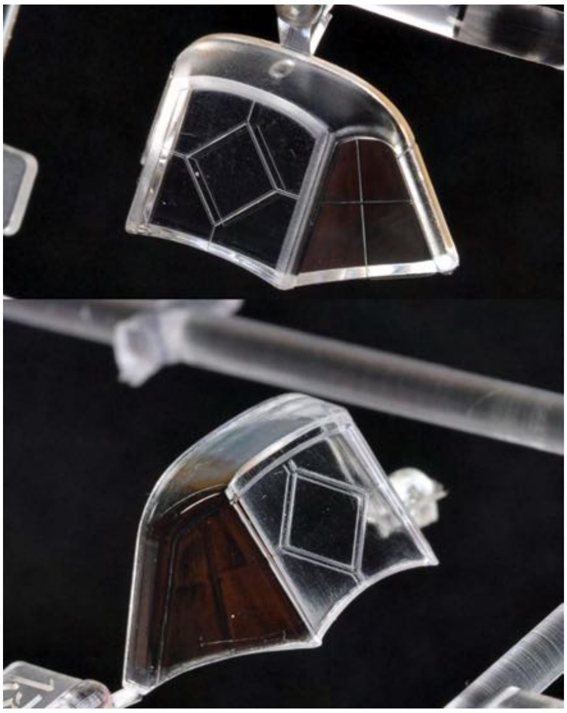
Thanks to Tamiya for the sample www.tamiya.com
Tamiya kits are distributed in the UK by The Hobby Company Limited www.hobbyco.net

In the rear cockpit, Tamiya's machine gun is better, even featuring teeth on the half-ring mounting rail. Accurate Miniatures' strap is nicely detailed though.

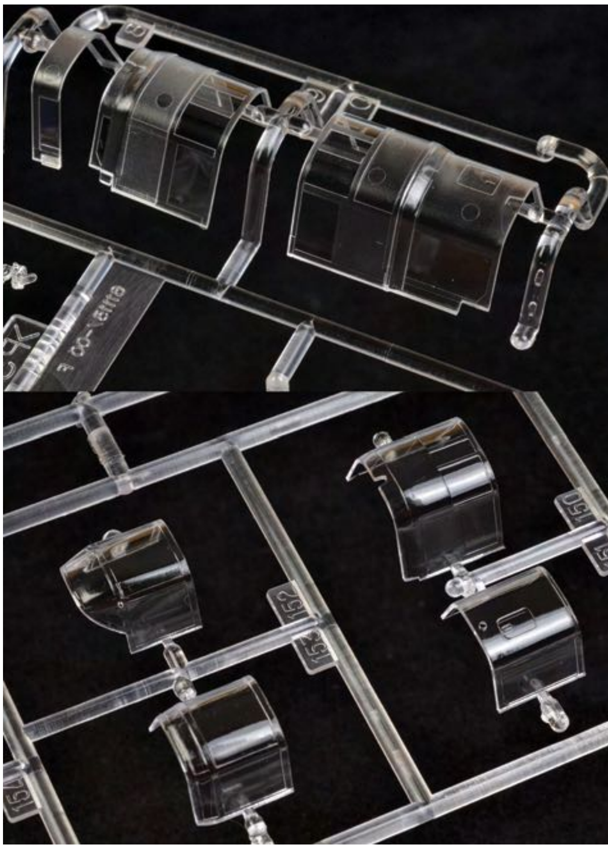




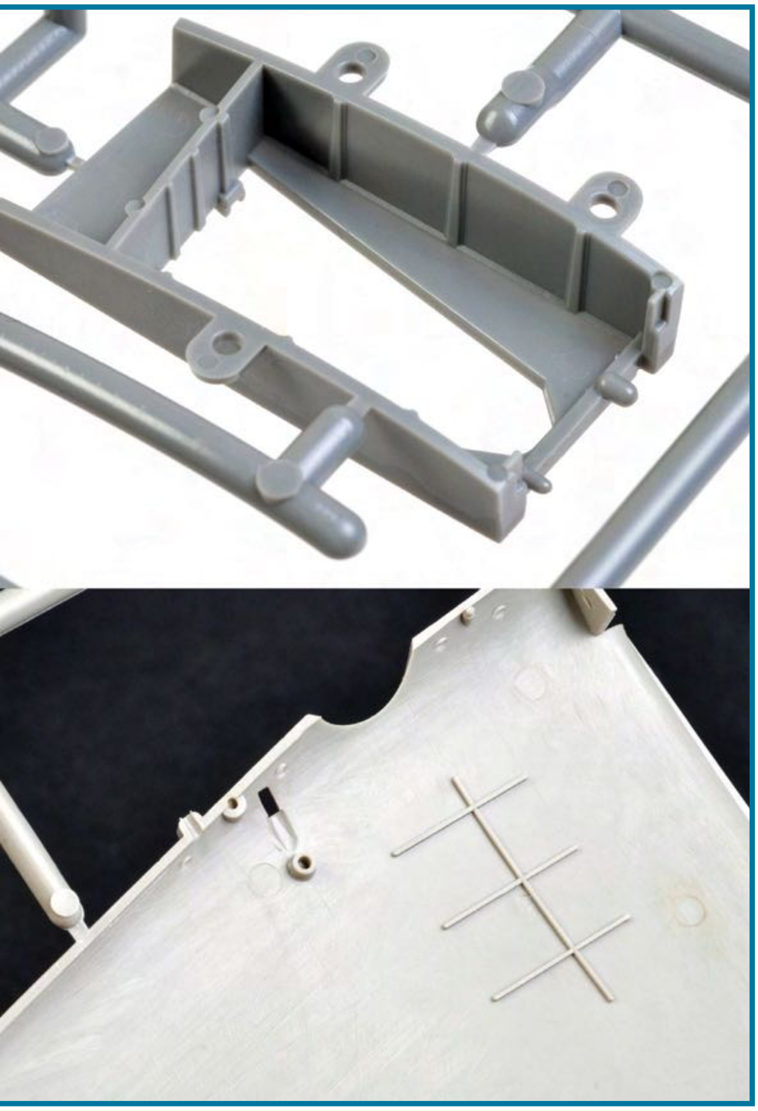
Tamiya and Accurate Miniatures took different approaches to the cockpit. Accurate Miniatures supplies a clear instrument panel that will look great with careful painting and the application of dial decals on the back. Tamiya's is solid plastic with decals supplied for the dials. The choice between the two is purely a matter of personal preference. The Accurate Miniatures cockpit floor incorporates the radiator face, but does not have a forward bulkhead. The long control rod linkage on the starboard side of the cockpit is painful to fit, and the Accurate Miniatures seat is not really up to the standard of its Tamiya counterpart. Tamiya takes a points win in terms of detail and sharpness in the cockpit.



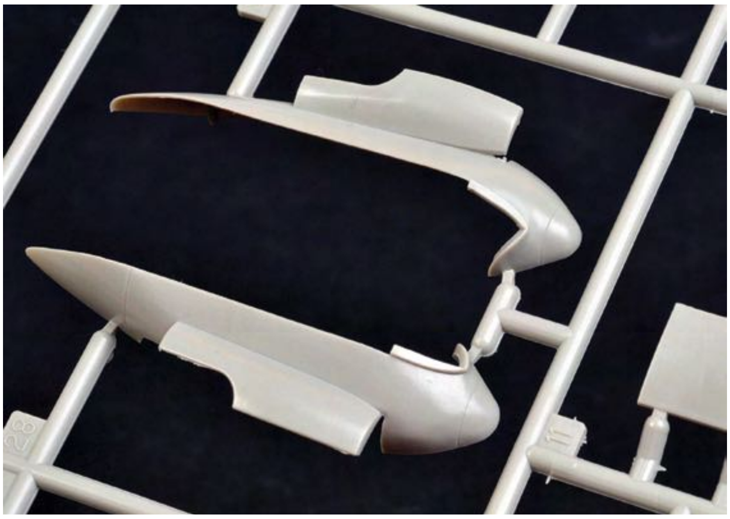
The windscreens of the Tamiya and Accurate Miniatures kits appear to be different. The rake of the Accurate Miniatures windscreen is slightly steeper while the armoured glass at the front of Tamiya's is a bit wider. Looking at wartime photos, it would appear that there were (at least) several variations in the style of windscreen, and the fairing below the windscreen. Sergey has pointed out that there were more than 90 serial modifications made to the Il-2 at various factories, so it is entirely likely that both Accurate Miniatures' and Tamiya's are correct, but different.



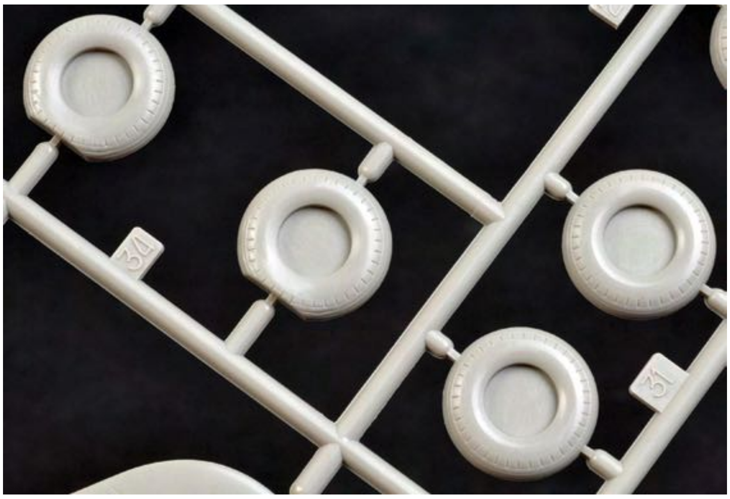
Both Accurate Miniatures and Tamiya offer three alternative styles of gunner's canopies. Accurate Miniatures' pilot's canopy must be glued over the centre section if it posed open, but Tamiya supplies a clever two-part assembly to depict the open pilot's canopy (top photo) - another win for Tamiya engineering.



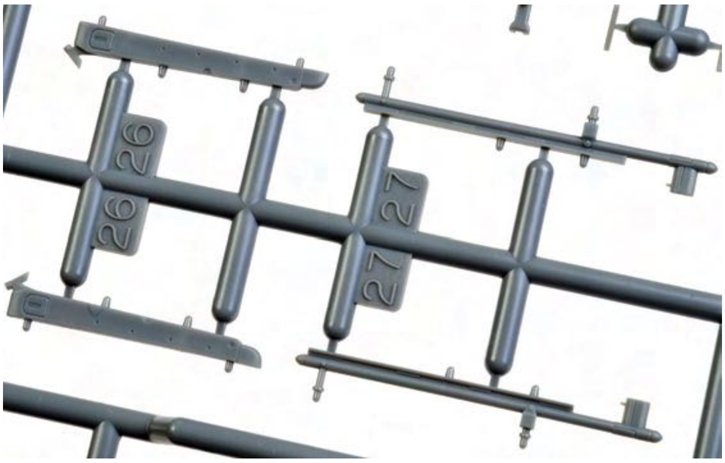
Tamiya's wheel wells are boxed in with a separate insert between the upper and lower wing halves, while Accurate Miniatures' are open between the wings. Tamiya also provides more structural detail moulded to the inside of the top wing.



Accurate Miniatures' kit has two separate parts for each lower section of the wheel wells, while these structures are moulded to the centre section of the bottom wing on the Tamiya kit. This is a simpler solution that results in less join seams and cleaning up later on. The main wheel wells are a clear victory to Tamiya in terms of detail and engineering.

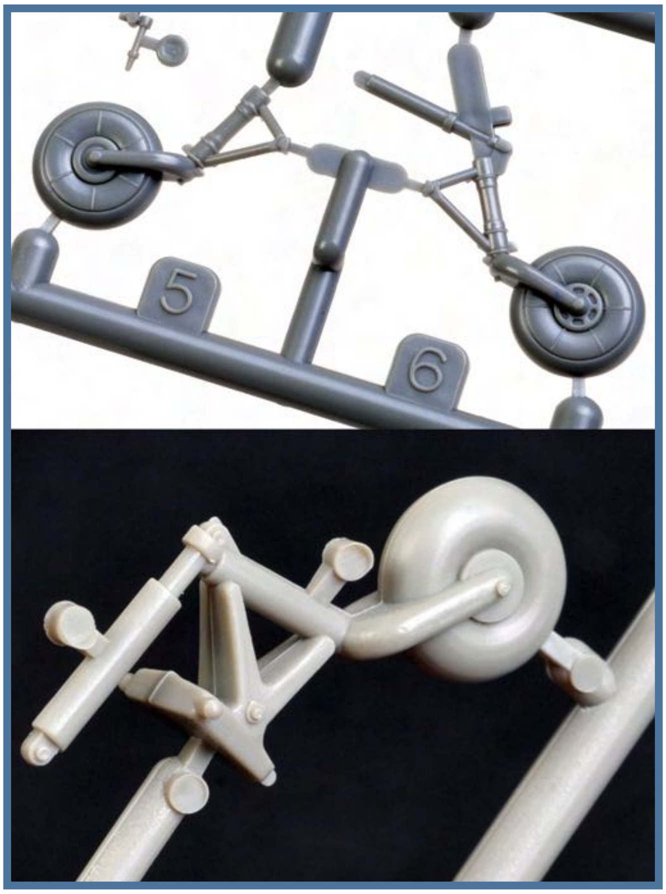


Accurate Miniatures offers the option of bulged and flattened main wheels. Tamiya does not. Optional underwing gun packs are also unique to Accurate Miniatures.



Tamiya's unique options include two styles of rocket rail…

…two different sets of bombs, alternative fairings for the wing cannon and seated pilot and gunner figures.



Tamiya's two-part tail wheel assembly with its open oleo scissor is clearly superior to Accurate Miniatures one-piece tail wheel.

THE BUILD EXPERIENCE

By far the biggest difference between the two kits, however, is buildability. Tamiya's kit fits together supremely well with no gaps or misalignment on either of the two kits that I have built so far.

On the other hand, Accurate Miniatures' Il-2 kits demand a great deal of attention and tweakery to fit properly. This is particularly true of the cowl ducting, the nose to fuselage join, the wing root to fuselage join, the cockpit and the wheel wells / undercarriage. The Accurate Miniatures kit will fit together, but it demands a level of skill and a good measure of patience.

CONCLUSION

Tamiya has now woven its magic one of the most produced aircraft in history, and one that had a major impact on the outcome of the Second World War.

In my opinion, Tamiya's 1:48 Ilyushin Il-2 is the best Shturmovik kit available in any scale. Surface textures are restrained and convincing, engineering will allow for trouble-free construction with no compromise to detail, and plenty of useful options are provided.

As to the question of whether we needed another Shturmovik, after closely examining the contents of this kit I would have to say "yes".

There is no such thing as consensus on the most deserving model subject. This point was proven in late April on HyperScale's Plane Talking Forum when visitors were asked what they though the next 1:48 scale Tamiya release should be. Out of nearly 50 responses, there were nearly 50 different suggestions.

Under those circumstances, I am happy to leave the decision up to Tamiya.

I can certainly understand why Tamiya chose the Il-2. It is one of the most significant aircraft in history, was produced in greater numbers than any other, it features a good variety of camouflage and markings, it could form the basis for a whole family of kits and the only other 1:48 scale Il-2 models were produced in 1997.

Furthermore, the detailed side-by-side comparison of Tamiya's and Accurate Miniatures' kits shows that Tamiya is the clear winner in almost every respect. Tamiya's accurate spinner, propeller blades, scoops and upper cowl shape are all noticeable improvements over the Accurate Miniatures kit, making a big difference to the overall look of the nose.

Tamiya's wheel wells and tail wheel are much better too. Although Accurate Miniatures' surface textures and cockpit details are very nice, Tamiya pips them at the post in these areas as well.

Clever engineering touches such as Tamiya's approaches to the open canopy and the intake ducting also remind us that this is a state-of-the-art kit from a manufacturer at the top of their game.

What really sets these two kits apart, though, is the building experience. Tamiya's Il-2 is sheer joy to build. During construction, the kit had me literally shaking my head in admiration of its clever parts breakdown and precise engineering.

Back in the late 1990s, Accurate Miniatures' Il-2 also had me shaking my head, but for entirely different reasons. It too can be built, but it is temperamental and can be frustrating. Such fussiness of construction is easy to forgive when there is no alternative, but Tamiya's new Il-2 has changed the game.

Even so, Accurate Miniatures' Il-2 still deserves our respect today. It was a genuine milestone in 1997, a plastic wonder of its day, and it remains a respectable kit in 2012. Indeed, if you want to build a 1:48 scale single-seater Il-2, Accurate Miniatures is still your only option, although I would urge you to replace the spinner and propeller. Vector offers an excellent resin correction.

However, if you want to build a two-seater Shturmovik, do yourself a favour and grab Tamiya's Il-2. It really is a beautiful kit, both in the box and on the workbench.

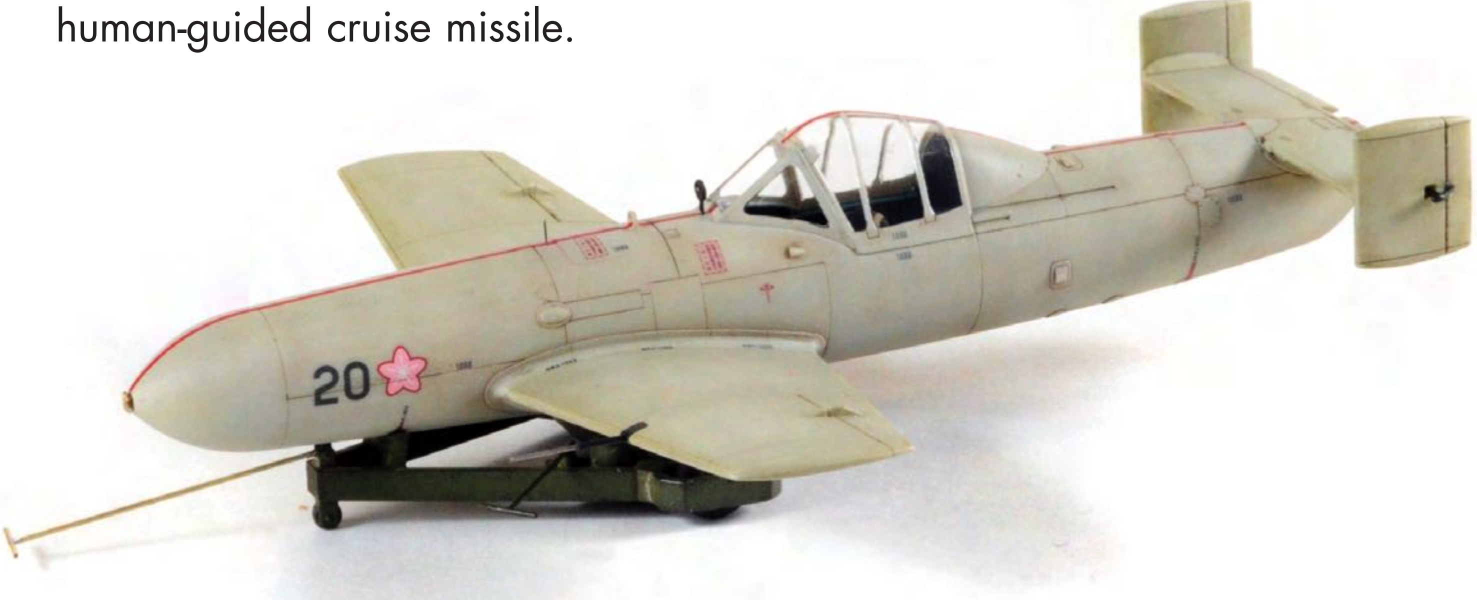
We can only hope for a straight-wing two-seater and some single-seater variants from Tamiya at some time in the future. •

NEXT TIME

Next time, Brett will build the second test shot, but this time will be painting and weathering it too!

CHERRY BLOSSOM

Tony Bell builds FineMolds' recent 1:48 scale kit of the Yokosuka MXY-7 Model 11 human-guided cruise missile.



Desperate times call for desperate measures, and if the Kamikaze weapons developed and fielded by the Imperial Japanese Army and Navy in the latter months of WWII are any indication, Japan was getting pretty desperate.

One such weapon of desperation was the Yokosuka MXY-7 Model 11 Ohka (cherry blossom), which was essentially a human-guided cruise missile. Conceived by an IJN ensign along with engineering students of the University of Tokyo it was designed and produced at the Dai-Ichi Kaigun Koku Gijitsusho (Naval Air Technical Arsenal) in Yokosuka, at the western side of the mouth of Tokyo Bay. The Kasumigaura Arsenal (north east of Tokyo) was the primary production plant, having built 600 airframes to Yokosuka's 115.

The Model 11 was essentially a small, solid fuel rocket powered airframe built around a 1200kg bomb, which made up more than half of the total loaded weight. The cockpit was very rudimentary, with only the minimum flight controls and instruments necessary for basic flight. Three rocket motors made the Ohka extremely fast, with a top speed in level flight of 650 km/h (350 kts), but its range was limited to 37 km (20 nmi), requiring it to be carried within range of its target by a slow, vulnerable G4M "Betty" bomber mother ship.

The Ohka was first used in combat on March 21, 1945 against the USS Hornet, USS Bennington, USS Wasp, and USS Belleau Wood. The Betty mother ships were intercepted by F6F Hellcats, causing them to jettison their Ohkas long before they were in range. On April 19, 1945 the USS Mannert L. Abele was sunk off Okinawa, the only ship to be sunk in an Ohka attack. In total, only six US warships were damaged by Ohkas, and the program was deemed to have had a minimal overall impact on the US Navy's operations.

THE KIT

FineMolds continues to live up to its name with their latest release of this diminutive kit. Moulded in light grey plastic, it features very petite surface detail, both raised and recessed as appropriate, and the canopy is wonderfully thin and clear. Decals are included for four different (but very similar) options are also top notch, with excellent colour density, perfect registration and whites that are actually white (as opposed to in days of yore when they would have been cream coloured).

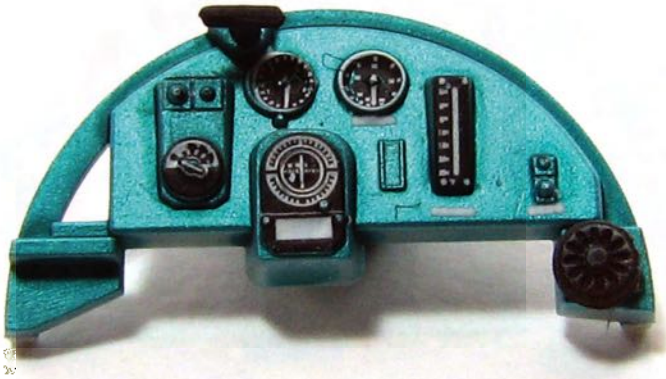
Despite being almost entirely written in Japanese, the instructions are clear and easy to follow. Although initial releases of the kit included these photo-etched details, primarily for the cockpit and rigging, my edition did not.

INTERIOR

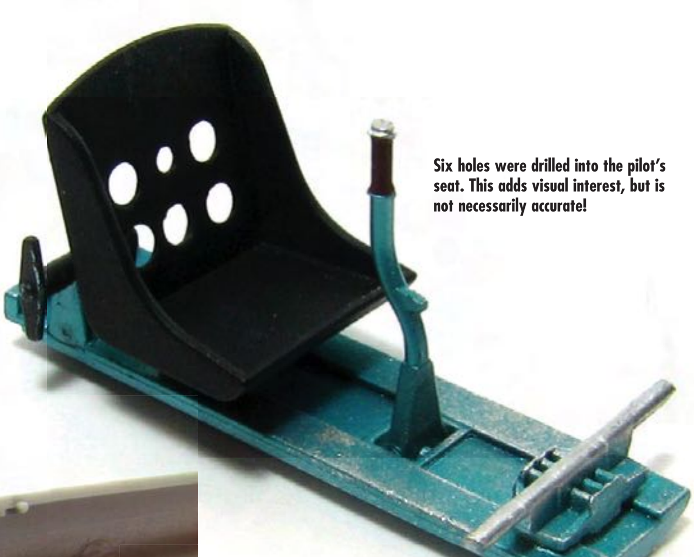
The interior is divided up into three main sections; the rocket motors, cockpit and warhead. Construction was very straightforward and simple, and took only a single afternoon for the assembly, painting and installation of the entire interior. Each rocket motor consists of three parts, two for the main cylinder and one for the nozzle. A nice touch is the slide-moulded nozzles which are already hollowed out. I deviated from the instructions and left the nozzles off until the very end, figuring that I might not get them properly centred in the fuselage if I attached them beforehand. This also left a nice big hole up the tail that I used to handle the model for painting. For added visual interest I drilled six holes in the back of the seat (not strictly accurate, I must admit) and thinned them from behind for a more scale appearance. All the black bits (rocket motors, seat and pilot's armour) were painted with Citadel Chaos Black from the spray bomb. This stuff is awesome, by the way. It sprays on beautifully straight out of the can and dries to a super smooth, durable flat black with just a hint of sheen.

The instructions call for the cockpit to be painted Mitsubishi interior green, but my research on the web indicated that the Model 11 probably had its cockpit painted aotake. With such an esoteric subject I figured I could go either way and chose the latter simply because it looks more interesting. Aotake is a transparent blue-green lacquer applied directly to aluminum, and although there are available shades straight from the bottle (Gunze comes to mind), I chose to represent it more like the real thing. I airbrushed the insides of the fuselage and cockpit bits Alclad Aluminum, forgoing my usual primer of Mr. Surfacer. I sprayed the Alclad directly onto the bare styrene, being careful not to lay it on wet until I had built up a sufficient mist coat. Next I mixed Tamiya X-23 Clear Blue and Gunze Clear Green (about 50/50), which I thinned with water and alcohol and airbrushed over the Alclad. After it dried, I brush painted some more blue-green to let it accumulate in the recesses and add a bit of depth. Finally I gave it all a light dry-brushing of Floquil Bright Silver enamel. I painted the details per the kit instructions and applied the instrument decals which fit perfectly and settled down nicely with Gunze Mr Mark Softer. For the pilot's harness I cut strips of masking tape, painted them Tamiya XF-55 Deck Tan and XF-68 NATO Brown, cut them to length and stuck them to the seat.

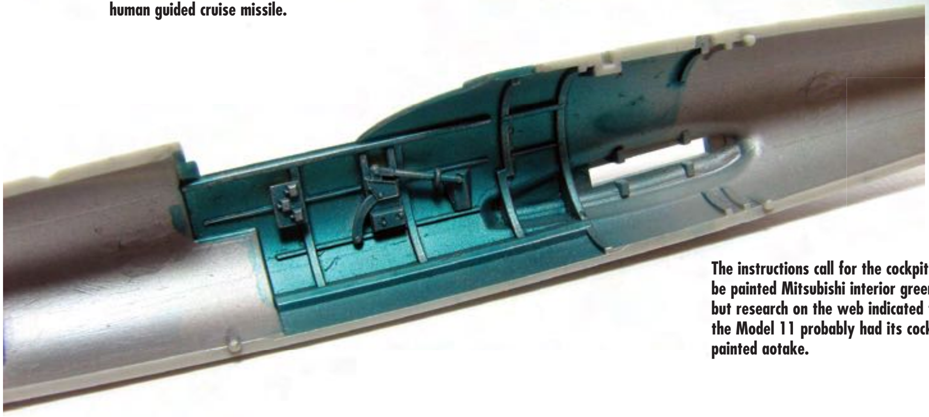
The warhead is made up of four separate pieces, plus its bulkhead mount. Given that all but ➤



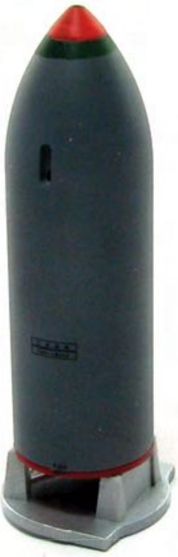
Only basic instruments were fitted to this human guided cruise missile.



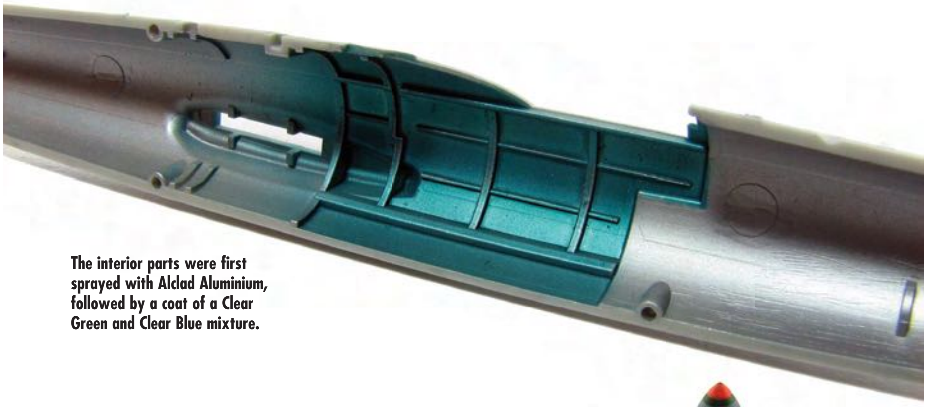
Six holes were drilled into the pilot's seat. This adds visual interest, but is not necessarily accurate!



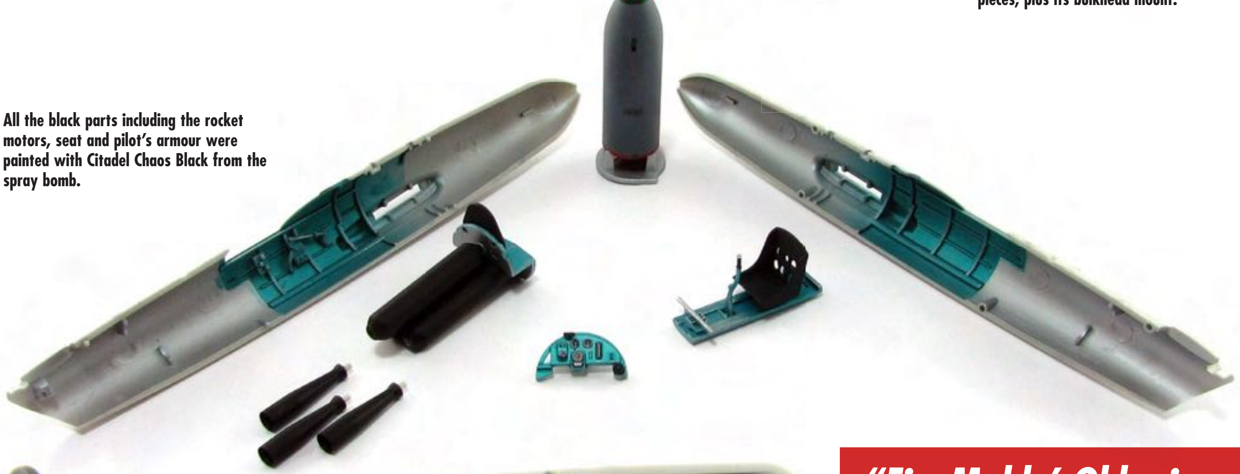
The instructions call for the cockpit to be painted Mitsubishi interior green, but research on the web indicated that the Model 11 probably had its cockpit painted aotake.



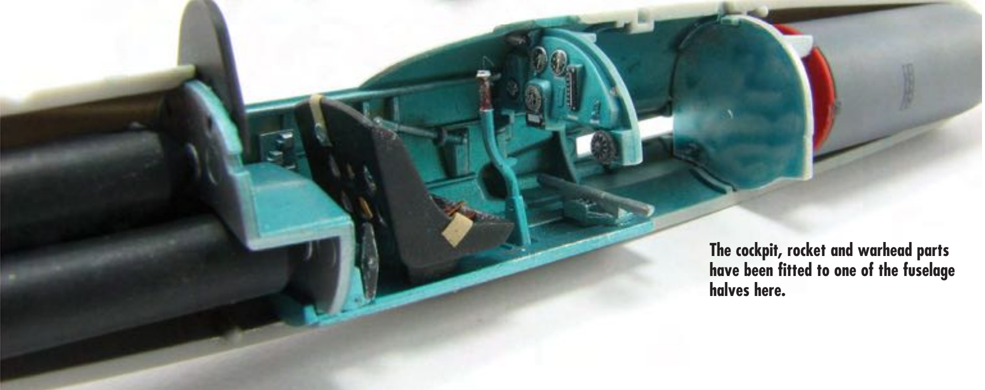
The warhead is made up of four separate pieces, plus its bulkhead mount.



The interior parts were first sprayed with Alclad Aluminium, followed by a coat of a Clear Green and Clear Blue mixture.



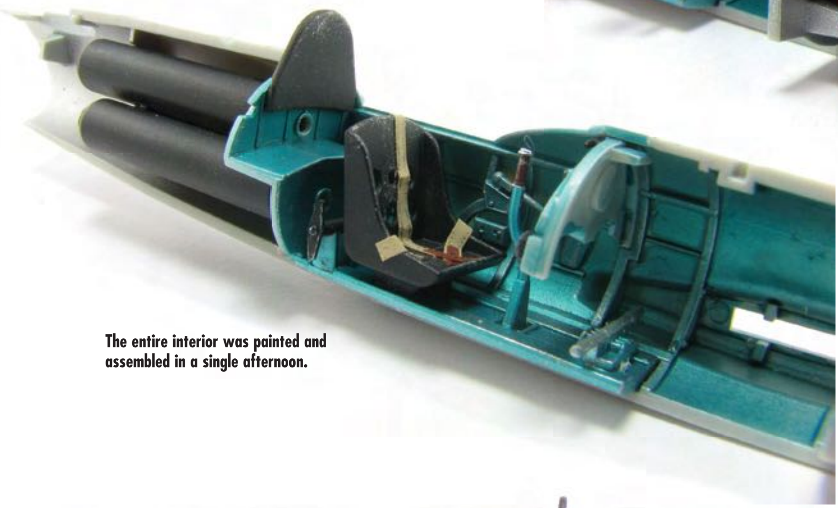
All the black parts including the rocket motors, seat and pilot's armour were painted with Citadel Chaos Black from the spray bomb.



The cockpit, rocket and warhead parts have been fitted to one of the fuselage halves here.

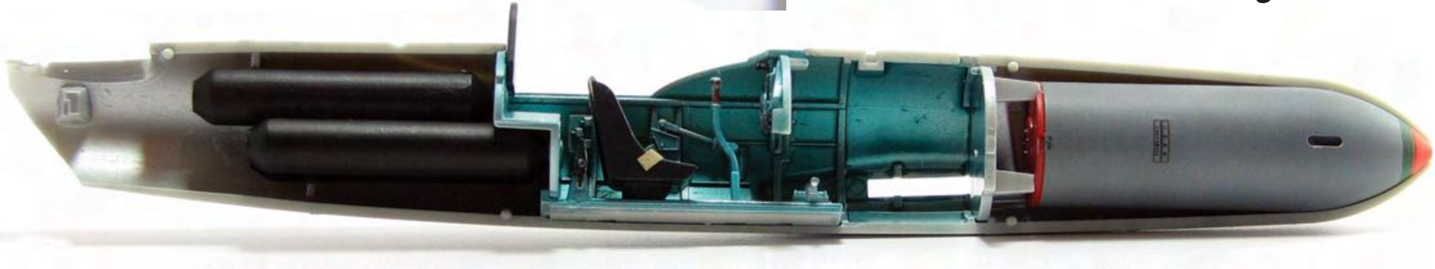
> *"FineMolds' Ohka is a well-designed and very nicely detailed little model of an interesting, albeit somewhat obscure, subject."*

Given that all but the tip of the warhead will be hidden inside the closed fuselage I considered not painting it at all, but at least you can see it here!

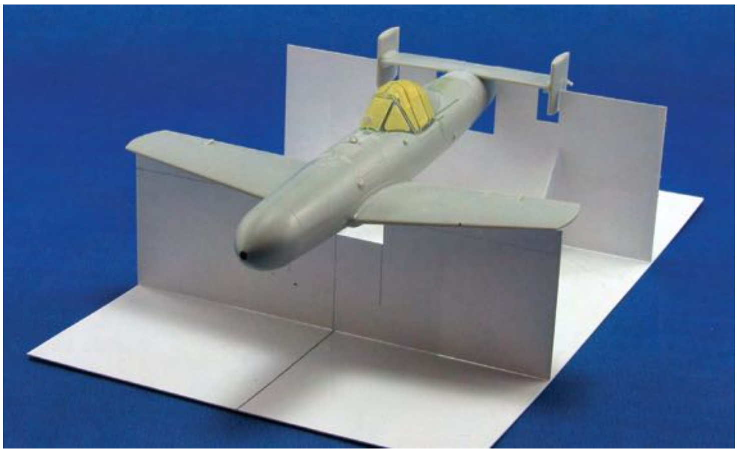


The entire interior was painted and assembled in a single afternoon.

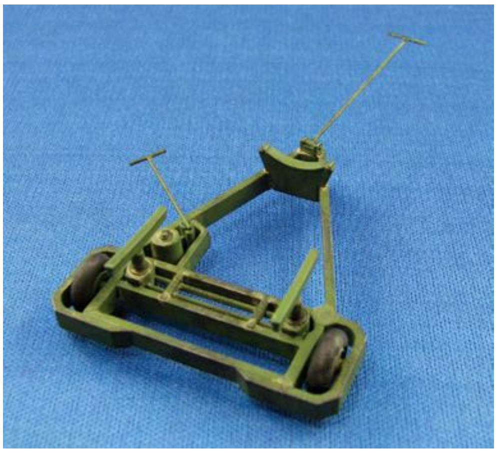
> ***"The Model 11 was essentially a small, solid fuel rocket powered airframe built around a 1200kg bomb, which made up more than half of the total loaded weight."***



The interior parts fitted and ready to be entombed inside the fuselage. All the parts fitted perfectly.



The wings have fairly substantial tabs but they do little to set the dihedral of the wings, so a jig was built from card stock and sticky tape.



The kit includes a nifty little ground handling dolly.

the tip will be hidden inside the closed fuselage I considered not painting it at all, but decided to do so after all just for fun. I also filled it with steel shot and superglue to allow the model to sit on its trolley without tipping back on its tail.

ASSEMBLY

All of the interior parts fit perfectly in between the fuselage halves, which I joined together with superglue. Care must be taken with the two vertical tail pieces as it is easy to mix them up and attach them to the wrong side. I attached them (correctly!) with superglue and cleaned up any excess with an alcohol based CA solvent that does not attack styrene, available from Lee Valley Tools. This leaves a nice, consistent panel line around the root fairings.

The rudder and elevator mass balances are tiny and delicate but suffer from rather heavy sprue attachment points. The best solution for removal without either damaging them or sending them off into alternate dimensions is to cut them off with a fine JLC Razor saw.

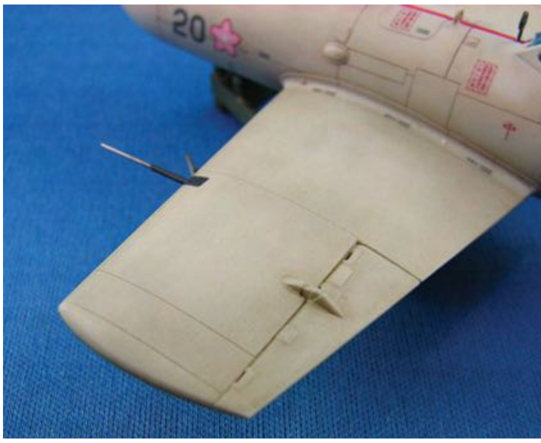
Each wing is divided into upper and lower halves, with each aileron being integral with the upper part. There was a bit of flash around the inside ejector pin markings that interfered with the fit, but a few quick swipes with a sanding stick to clean them up ensured a perfect fit. The only area the required real attention was the wing to fuselage attachment. The wings have fairly substantial tabs but they do little to set the dihedral of the wings. The instructions have a diagram showing the dihedral, so I scanned it and measured the angle in Photoshop (6° at the bottom wing surface) and constructed a simple jig from card stock and cello tape. Using the horizontal tail to keep the model level, I attached one wing using the jig, flooding the root with superglue and wiping the excess with solvent. Removing the model from the jig I then glued other wing, carefully eyeballing the dihedral with respect to the tail to ensure symmetry.

The clear parts fit flawlessly with a sparing application of liquid cement, and after carefully masking them with Tamiya tape it was time to turn my attention to the rather simple paint scheme.

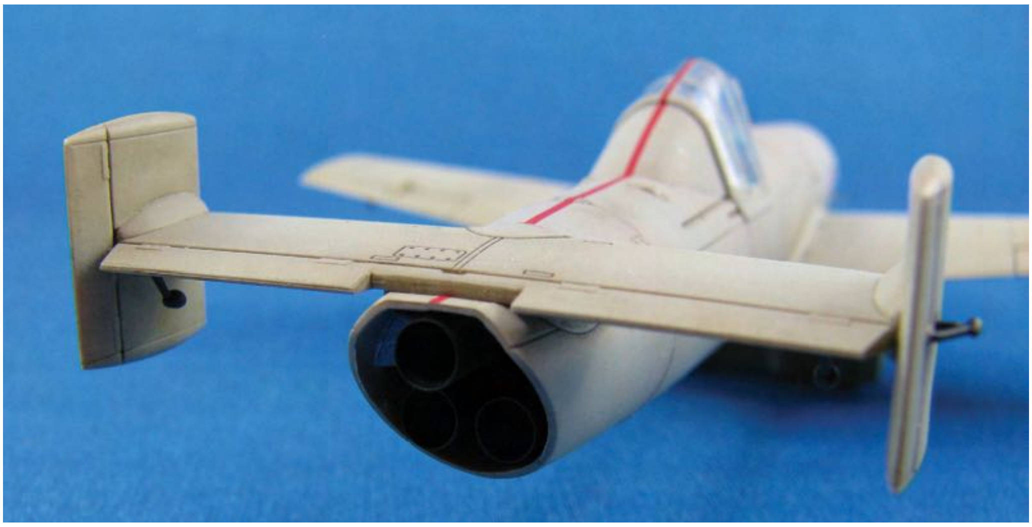
PAINTING AND WEATHERING

To paraphrase Henry Ford, you can choose any colour you like so long as it's IJN grey, at least according to the instructions. According to my

For the paint, you can choose any colour you like so long as it's IJN grey.

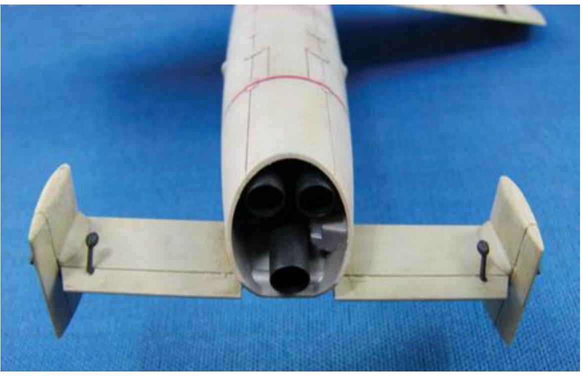


The basic paint comprised primarily of Tamiya XF-12 J.N. Grey with a good dose of XF-2 Flat White and a bit each of XF-52 Flat Earth and XF-66 Light Grey.



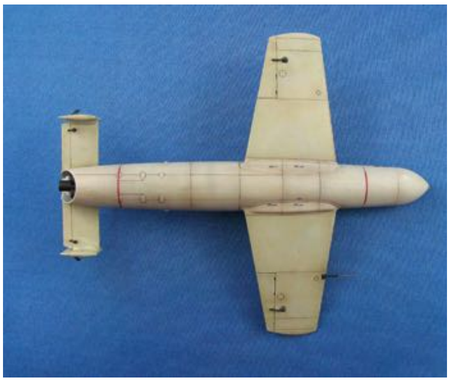
The open rocket exhaust proved to be a handy mount for a handle while painting the model.

The pitot probe was made from a length of fine steel hypo tubing inserted into a sleeve of plastic, made by heating a piece of styrene tube over a candle and stretching it.



The mass balances were added toward the end of construction to avoid damaging them during handling.

The tiny brass-coloured nose fuse is a nice finishing touch.



The subtle difference between the shade of the wings and the fuselage may be appreciated in this underside view.

online research however, the metal surfaces and the wood surfaces were slightly different flavours, the former being more caramel and the latter more olive.

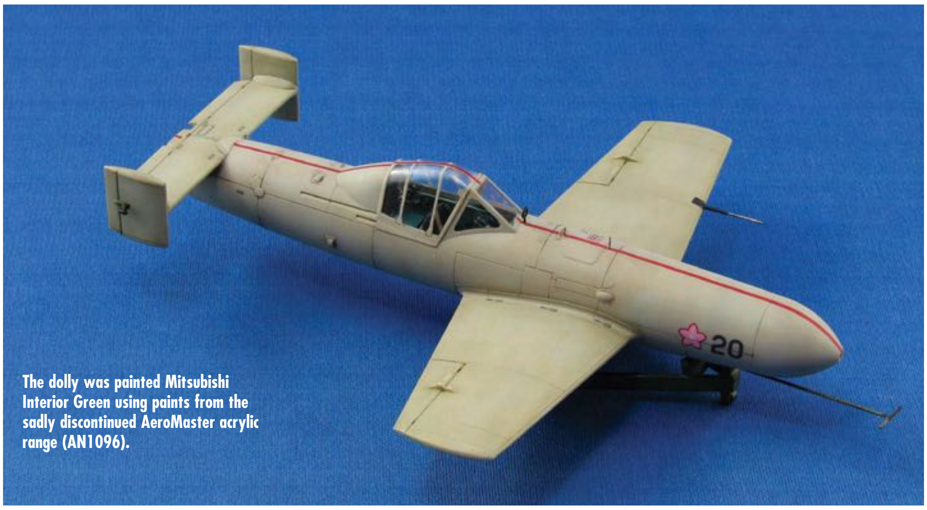
I mixed up a basic grey that consisted primarily of Tamiya XF-12 J.N. Grey with a good dose of XF-2 Flat White and a bit each of XF-52 Flat Earth and XF-66 Light Grey. I didn't use any specific proportions, but rather eyeballed it until I liked the look. I finally added a good dollop of X-22 Clear to impart a slight eggshell sheen.

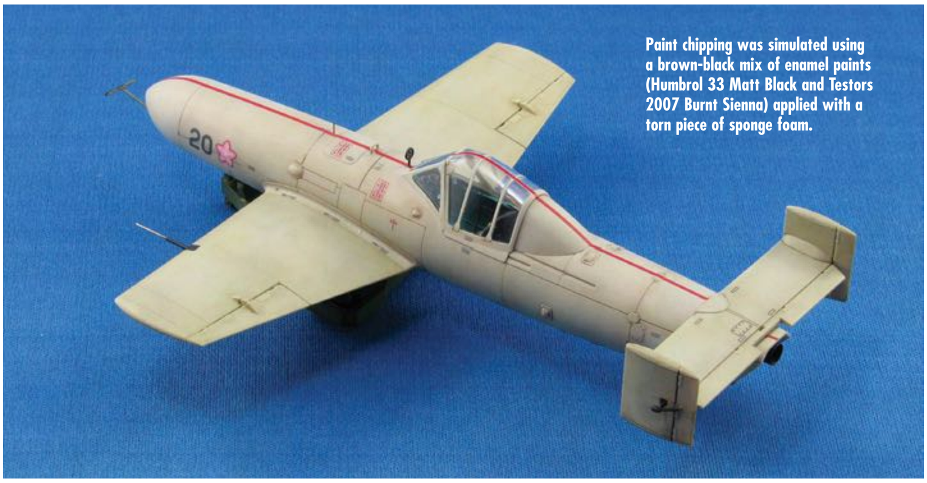
After spraying the entire model with my custom J.N. Grey, I let it dry overnight and then rubbed it down with a 3600 grit sanding pad. I find that this results in a very smooth surface that looks very much to scale. It's subtle, but definitely worth the extra 20 minutes of effort.

To differentiate between the wood and metal finishes I decided to use artists' oil paint filters. For the fuselage I mixed a very thin wash of Mars Brown and odourless paint thinner, which I then applied with a broad brush, being careful to avoid the wooden flying surfaces. The point of the filter is not to accentuate detail, but rather to tint large areas, so I was careful not to allow much of a buildup in the recesses.

On the wings and tail surfaces I used a slightly different approach, applying random small dabs of Olive Green oil paint all over and spreading them around by dabbing at them with a broad, soft brush just barely moistened with thinner. I then removed as much of the oil paint as I could with dry cotton swabs, leaving an unevenly stained finish. It is important to do this on a flat or eggshell finish so that the oil paint has something to grip, as the paint would simply wipe completely off a gloss surface.

After the oils dried for another day, I airbrushed a light coat of Future to prepare the surface for decals. Another benefit of rubbing the paint smooth is that the gloss coats can be kept to an absolute minimum, reducing the risk of losing any fine surface detail under the clear coats. The kit decals are very nice, responding well to Gunze Mr. Mark Softer. Like Tamiya and Hasegawa decals, FineMolds decals do not like stronger setting solutions like Solvaset, but work beautifully with Gunze's product. The numerous small stencils were a little stark against the light grey finish so I toned them down a bit by airbrushing a very light mist of heavily thinned (9 parts rubbing alcohol to 1 part ➤


The dolly was painted Mitsubishi Interior Green using paints from the sadly discontinued AeroMaster acrylic range (AN1096).


Paint chipping was simulated using a brown-black mix of enamel paints (Humbrol 33 Matt Black and Testors 2007 Burnt Sienna) applied with a torn piece of sponge foam.

MODELSPEC

FineMolds 1:48 IJN Yokosuka MXY-7 Ohka. Kit No. FNMFB-15

Tools and Accessories Used:

Fine steel hypodermic tubing
Brass rod
Tamiya Tape
Cardboard and Sticky Tape (to build assembly jig)
3600 grit sanding pad

Paints and Finishing Products Used:

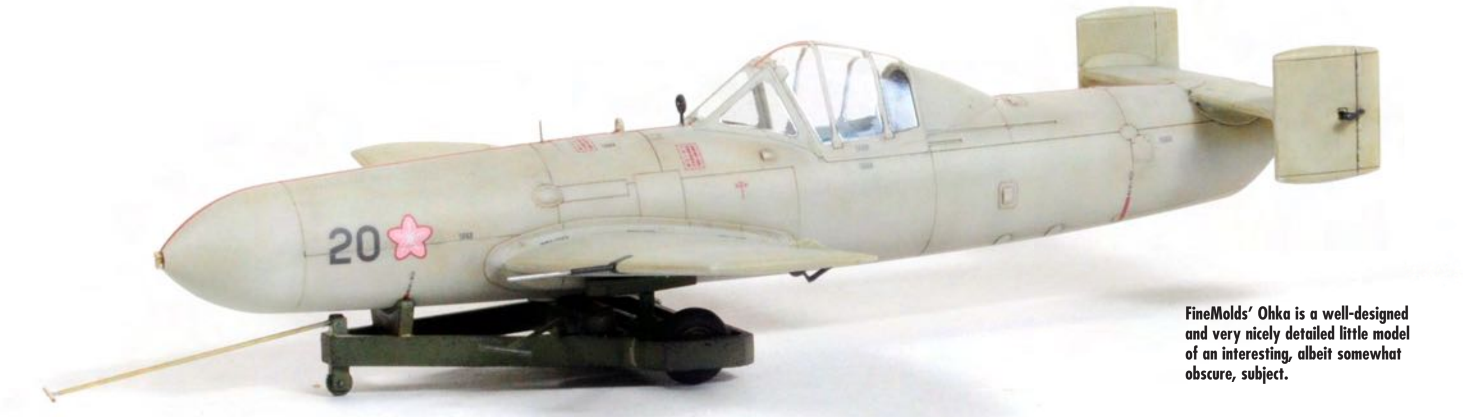
Tamiya Acrylics: X-22 Clear; X-23 Clear Blue; XF-2 Flat White; XF-10 Flat Brown; XF-12 J.N. Grey; XF-52 Flat Earth; XF-55 Deck Tan; XF-66 Light Grey; XF-68 NATO Brown; XF-69 NATO Black
Gunze Acrylics: Clear Green
Aeromaster Acrylics: AN1096 Mitsubishi Interior Green
Vallejo Acrylics: 73104 Light Sienna
Alclad Aluminium
Citadel Chaos Black (Spray Can)
Humbrol 33 Matt Black
Testors 2007 Burnt Sienna
Gunze Mr Mark Softer
MIG Productions: P410 Oil and Grease Stain Mixture

+ Good fit; nice detail; crisp surface textures; includes handling dolly; excellent antidote to modeller's block.

− Nothing worth mentioning.

Rating: 9 out of 10

FineMolds models are available online and from hobby shops and worldwide.


FineMolds' Ohka is a well-designed and very nicely detailed little model of an interesting, albeit somewhat obscure, subject.

paint) J.N. Grey.

The final weathering touch was to airbrush some random streaking and fading to add a little more variation. I used a lightened shade of J.N. Grey for some fading (thinned 9 to 1) and a grubby mix of XF-69 NATO Black and XF-10 Brown, similarly thinned. Because an operational Ohka would only ever take to the air once I avoided the temptation to depict airflow streaking, but rather I went for the vertical streaking and fading that would result from the aircraft having being stored outdoors in the rain and sun for a short while.

FINAL TOUCHES

I made a pitot probe from a length of fine steel hypo tubing inserted into a sleeve of plastic made by heating a piece of styrene tube over a candle and stretching it, much as one would do with sprue for an antenna. Other small bits such as the sighting post and nose fuse were also attached at this point, finishing off the aircraft.

The kit also includes a nifty little ground handling dolly, which I assembled according to the instructions. Knowing my propensity to break off Fiddly bits however, I replaced the two "T" handles with ones fabricated from soldered brass rod. Even so, I still managed to break one of the handles when I dropped it!

Following the instructions, I painted the dolly Mitsubishi Interior Green from my dwindling stock of AeroMaster acrylic paints (AN1096). I simulated the paint chipping using a brown-black mix of enamel paints (Humbrol 33 Matt Black and Testors 2007 Burnt Sienna) applied with a torn piece of sponge foam. I find enamels work best for this as they have a longer working time than acrylics and don't dry as quickly on the foam. Next I rubbed the edges in a few places with an ordinary pencil to impart a metallic look, followed by an application of Vallejo 73104 Light Sienna pigment mixed with water and a bit of dish soap to some of the nooks and crannies. Finally I added a few touches of MiG P410 Oil and Grease Stain Mixture.

CONCLUSION

FinMolds' Ohka is a well-designed and very nicely detailed little model of an interesting, albeit somewhat obscure, subject. An excellent antidote to modeller's block, it made for a quick, fun build that was a welcome break from the more involved and ambitious sorts of projects that can get bogged down. And speaking of ambitious, perhaps I should start on the Tamiya Betty as a companion to the Ohka… •

SEVENTY SECOND TOMCAT

Phil Parsons analyses the new 1:72 scale HobbyBoss F-14A Tomcat, and concludes that it will be encouraging for the younger generation.

Hasegawa, Academy, Revell, Fujimi, Italeri, and Airfix already make 1:72 F-14A Tomcat kits, and HobbyBoss has now entered the fray in competing for your hobby dollar. Let's take a look at why this is the kit for you or someone of the next generation of modellers.

When HobbyBoss first came onto the market, I purchased some of their 1:72 scale WWII aircraft for my son and a friend of his to sink their teeth into. I was impressed by the ease of construction and how, after minimal effort, a nice model could be produced by the two boys. I get the same impression looking at this kit.

Attention to detail is the key here.

HobbyBoss certainly take care of their presentation and packaging. All sprues are individually sealed, unlike others who have the canopy floating about with the rest of the sprues. Any part that is delicate is wrapped in padding and the fuselage is in a separate storage area. All in all, the plastic arrives at your place in the same condition it left the moulds. Hats off to Hobby Boss.

The instructions come in HobbyBoss's standard fold out style, and the painting guide is on a single, double sided colour layout. Now, for me the painting guide is too small for my eyes. I will be using the scans from my review as they are a better size. That said; I feel this kit is aimed at the less visually challenged generation.

From the look of the layout, HobbyBoss intends to bring out the rest of the Tomcat Family. Their construction will allow different beaver tails, exhausts etc. that differentiated the family. The one area that will be difficult is the vents for the gun exhaust. This is integrally moulded to the forward fuselage and this area changed with the different variants.

The kit comes with two types of nose wheel oleo, standard and compressed with the launch bar lowered. While this is a nice option, a jet with the launch bar lowered would hopefully have a crew on board and the slats and flaps extended, so this is not really a possibility with this kit. One option that is nice to see is the exhausts; the TF-30's engine nozzles, fitted to the F-14A's were controlled by fuel pressure, via the Exhaust Nozzle Controls (ENC). Depending upon how the engines were shutdown the nozzles would be in different positions. This was the same as the ENCs on the F-111s. Engines shut down simultaneously are the same, if one engine was shut down before the other they will be in different positions. The standard is left closed, right fully open.

One thing I have not encountered before is the nose gear door moulded as part of the forward fuselage. This again points towards the junior modeller in simplifying the construction process. Another area to be aware of is the placement of the fuel tanks. The mounting holes are centrally located on the inlets, they should be further outboard.

WEAPONS

This jet comes with a full loadout, two full sprues with AIM-54,9 and 7 missiles. This is nice especially when some of the more expensive options available list "Weapons sold separately".

PAINTING AND DECALS

Check your references when painting. The instructions would have you paint the entire slat red. Also, in in scheme IV, from all the images I have seen of VF-111 schemes the tail is white behind the Sundowners emblem. This option also lists the date as 1991, now BuNo 160656 had crashed before this date, so this actually looks to be a mid-1980s VF-111 paint scheme.

SCHEMES

- BuNo 160379 VF-41 USS Nimitz 1978
- BuNo 160390 VF-41 USS Nimitz 1981
- BuNo 159449 VF-84 [sic] USS America 1975 (Correction VF-142)
- BuNo 160656 VF-111 USS Kitty Hawk 1991 [sic] (Correction mid 1980')

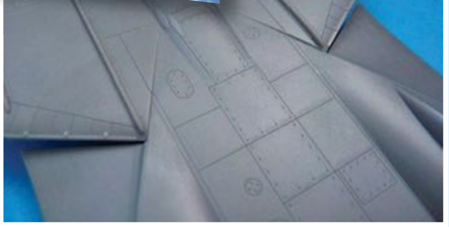
One deficiency is the decals. The red in the Stars and Bars is out of register. This is a pity, because these are used in 75% of the schemes.

CONCLUSION

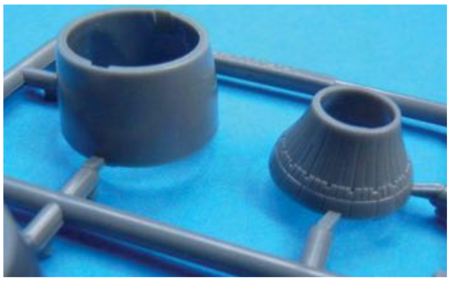
There are a lot of Tomcats on the market and prices vary, as do the options available within the kits.

HobbyBoss has again produced a kit that will delight the younger generation thanks to its simple design, nice weapons and colours schemes. I look forward to seeing the rest of the HobbyBoss Tomcat Family.

HobbyBoss kits are available online from Creative Models Limited www.creativemodels.co.uk •



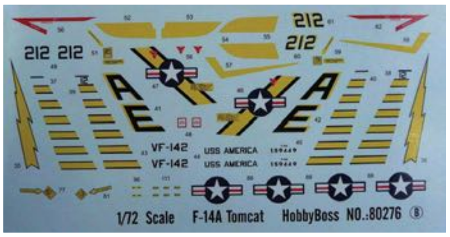
Surface detail is restrained and crisp throughout.



Both open and closed jet nozzles are included.

The main fuselage parts are nicely done.

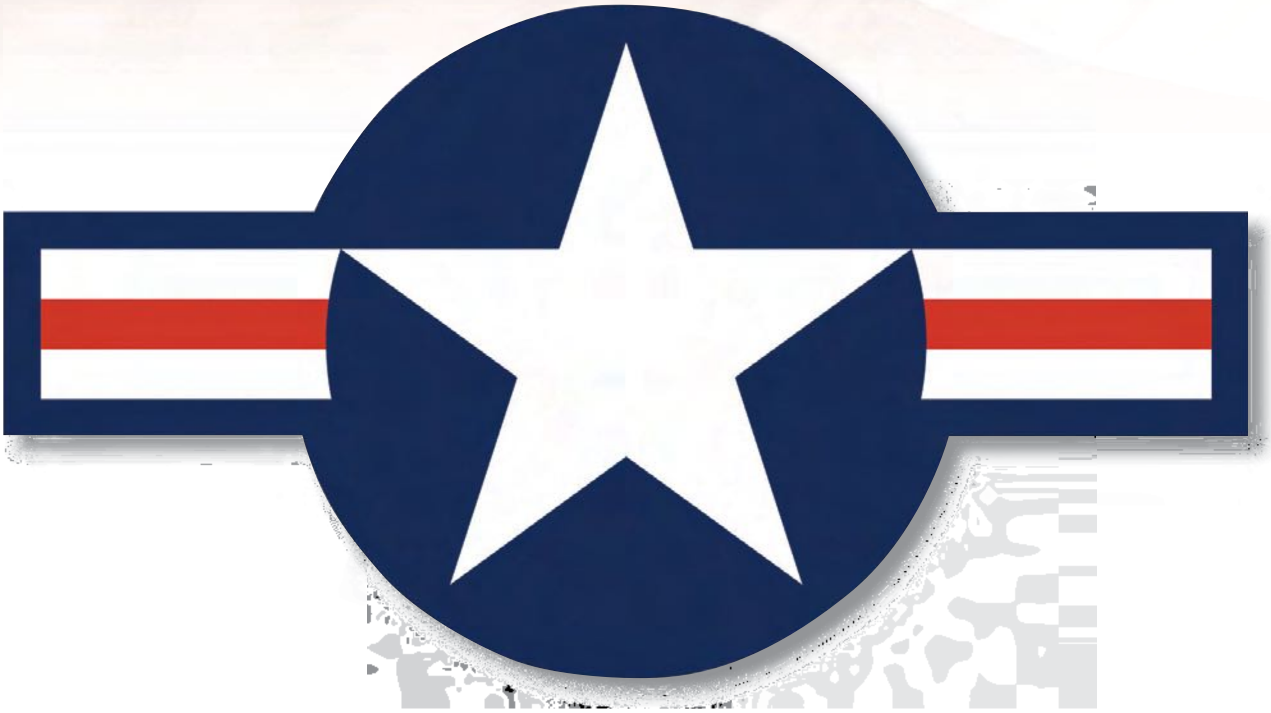
Canopy parts are clear and free from distortion.



Decals are well printed but the national insignia are out of register.

STARS & BARS

Jennings Heilig describes the history and evolution of the famous American "Stars & Bars", and explodes some common myths and misconceptions.



The aircraft national insignia of the United States military is one of the most ubiquitous but least understood markings commonly seen on real aircraft and on our models. While many artists get them absolutely correct, unfortunately many do not. The design looks deceptively simple at first glance, but like anything else in our hobby, the devil is in the details.

Without getting into the long, convoluted history of how the current "star & bar" came to be, let me try to clarify the way it should be constructed, and show some incorrect examples of it that I have seen in the form of decals and in other published works. Hopefully it will give you an appreciation for the intricacies of what you're looking at, and will allow you to discern what's right and what's not.

There have been a million variations of the basic design, and my intention here is not to cover every one, but rather to show how the correct, approved, authorized version is supposed to look. People with far better historical chops than I have studied this subject area for ages, and one could probably write a fairly substantial book on this alone. I am also not going into the subject of colour variations, as that's another chapter in itself.

It was during 1916 that the basic design for the U.S. cocarde was settled upon. The basic geometry of the design did not change until 1943, although there were variations, and the colours were often subject to wide latitude early on. The 1916 design featured a white star superimposed on a blue disk with a red disk in the middle of the white star. Although other roundels were used in this period, the star-in-circle with a red centre disk design remained the standard U.S. aircraft insignia until mid-1942, when the red disk was removed.

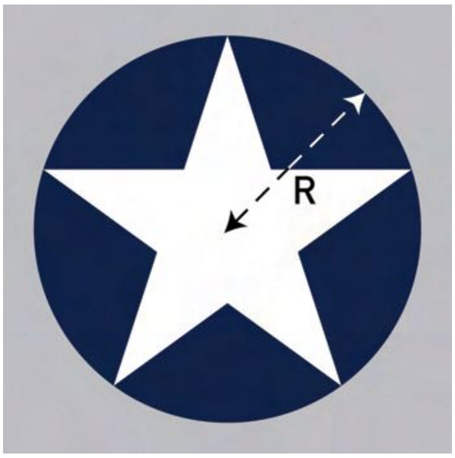


Fig.1 May 1942 Insignia

The crucial key feature of this design is that the points of the star touch the disk. In other words, the length from the centre of the star to the tip of one of its arms was equal to the radius of the disk. This seemingly simple concept is the foundation upon which everything else is based, so if you start out with a star that doesn't touch the disk, everything from there on out will be wrong.

From May of 1942 the red centre was removed, leaving a plain blue disk with a superimposed white star. In order to increase visibility, it was decided in mid-1943 to add white bars flanking the insignia. Here's where the fun starts.

Again, everything is based on the radius of the blue disk. The length of the white bars was to be equal to the radius of the disk. Their height was to be 1/2 this amount. The upper inner corners of the bars touch the edge of the disk, even with the outermost tips of the arms of the star, forming a straight line from the tops of the bars across the outstretched arms of the star. Critical here is that the bars were not centreed on the disk, but rather they sat somewhat above its horizontal centreline due to their being even with the arms of the star. Since the disk bulges outward from its contact point with the bars, each bar has a "bite" out of it where the blue disk intersects it.

At the same time the bars were added, a red border was added around the entire insignia. Again, understanding how this was accomplished is key, and something often misunderstood. The border was added around the entire new insignia - that is, around the disk and the white bars. The width of the new border was to be 1/8 the radius of the blue disk. I'm sure many attempts were tried before these proportions were arrived at, but once they were, it was clear that the new design had great balance and "eye appeal". Everything about it just looked "right".

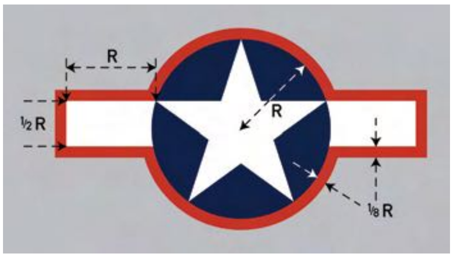


Fig.2 July 1943 Insignia

Within a few months however, it was decided that the red border had to go, so a blue border was substituted. This seemingly small change had a great effect on the way the eye perceives the design. The basic blue disk from which everything is measured was no longer immediately visible. To the eye it appears that the basic disk is now 25% larger (that is, by 1/8 its radius all the way around, making the apparent diameter 1/4, or 25% larger). The white bars now appear to intrude into this larger disk. It was this form of the insignia that took the U.S. through much of WWII and the immediate post-war period.

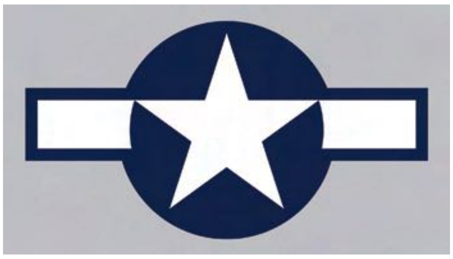


Fig.3 September 1943 Insigni

When the U.S. Air Force was made an independent service, and the Department of Defense created from the old War and Navy Departments in late 1947, red bars were added to the white bars flanking the insignia. The official standard calls for these bars to be 1/6 the radius of the original disk. Mathematically, that means that the height of the white bar can be divided into thirds to arrive at this dimension (remember, the white bars are 1/2 the radius, and 1/2 divided by 3 is 1/6). Again, this proportion looks "right" to the eye. This is the official version still in use today. A relatively common, but technically incorrect variation has a red stripe that is the same width as the blue border (1/8 the radius of the disk).

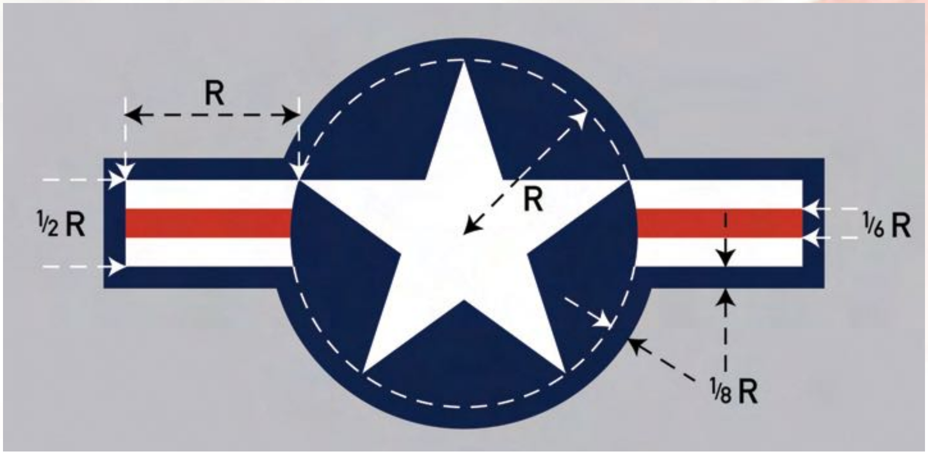
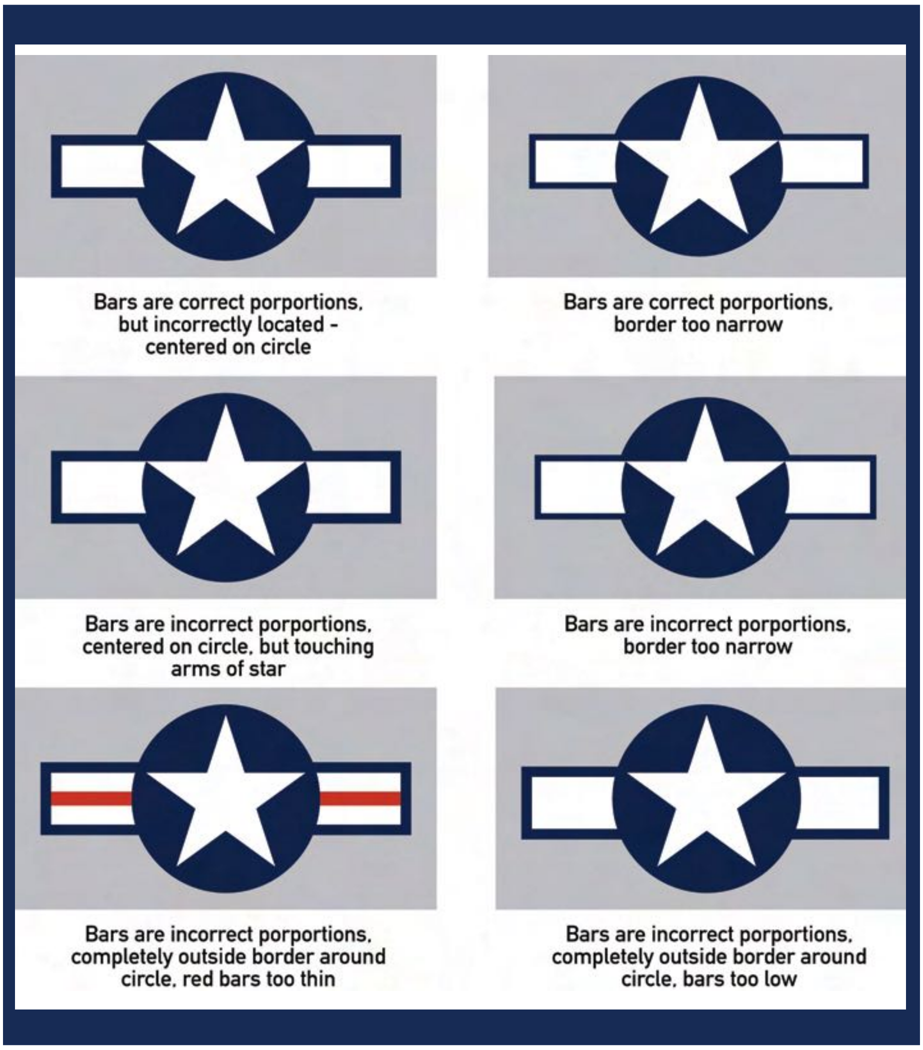


Fig.4 September 1947 Insignia

So that's how you construct a U.S. "star & bar". It helps to understand some basic geometry, but even lacking that, simply looking at the insignia and how its various parts relate to one another, it is fairly easy to see whether what you are looking at is right or not. Another side note - I have avoided the subject of "low-viz" insignias entirely. Many of them are completely different in every way from the standard full colour version. A subject for another day!

Below are a few examples of insignias that are incorrect in one or more key ways. I have created these based on errors I have seen in the past. They are not copies of insignias found on any commercial product or in any publication. Many more variations exist.•



Bars are correct porportions, but incorrectly located - centered on circle

Bars are correct porportions, border too narrow

Bars are incorrect porportions, centered on circle, but touching arms of star

Bars are incorrect porportions, border too narrow

Bars are incorrect porportions, completely outside border around circle, red bars too thin

Bars are incorrect porportions, completely outside border around circle, bars too low

DALLAS PONY

Chris Wauchop declares that Tamiya's 1:32 scale P-51D Mustang is the best plastic kit that he has ever built. Let's see why…

I love kits that can be built straight out of the box with virtually no need for corrections or enhancements. And boy, Tamiya just keeps delivering!

Their 1:32 scale Spitfires are just gorgeous and this new P-51 Mustang kit is even better.

Having said that, I did make one or two changes and additions but these were very basic and will be explained later.

TAMIYA'S 1:32 SCALE P-51D MUSTANG IN THE BOX

Tamiya's 1:32 scale P-51D Mustang is made up from 389 parts in grey plastic, 26 parts in clear, five black plastic pieces; two frets of photo-etched metal, two self-adhesive metallic name plates, a self-adhesive masking sheet, 16 metal rods, 17 mini-magnets, various screws and bolts, eight poly caps and two decal sheets with markings for three varied schemes.

Surface detail comprises crisply recessed panel lines are supplemented with rows of extremely restrained rivets. The visibility of the rivets varies depending on the angle and intensity of available light, ranging from subtly noticeable to almost imperceptible. The rivet detail is depicted on all the main surfaces including the wings. Tamiya has chosen to depict the wings straight off the production lines, without the puttying and sanding that often smoothed the surface before entering service. This will make life easier for those who want to model a subject that did not have filled wings, and the surface detail is so delicate that it will suffice for most modellers anyway. For those who want to go the extra mile and represent filled wings, the rivets are very shallow so they will easily be hidden under a sanded coat of Tamiya or Gunze Surfacer.

Other raised detail is also depicted where appropriate, including fasteners with slot head detail. On the real aircraft these fasteners were flush with the surface, but the raised mouldings offer some interesting and simple weathering opportunities.

The fuselage halves are each presented in two main parts. The forward section has the main engine bearers moulded in place. This should be a big help when aligning the thin removable engine cowlings later in the assembly process. Two options are offered for the rear fuselage parts. One has the later production version with the wedge-shaped fin fillet, while the other is presented without the fillet.

Both optional tail units have an open space for a tail wheel insert. Alternative inserts are provided for the tail wheel up or down. These are held in place with magnets and are interchangeable even after the model is complete. Another couple of innovations have been included in the tail unit. The optional photo-etched AN/APS-13 Tail Warning Radar is trapped between the two tail halves, ensuring a very robust fit and perfect alignment. A polythene cap is also installed between the tail h[redacted] of difference by the time the unique supercharger, intercooler, oil tank, fittings, plumbing and mounts are installed.

Once again, the Merlin engine is a beautifully detailed assembly and uncompromising in size thanks to the scale-thin cowlings. These are held in place with miniature magnets, and may be removed to display the engine. Another nice touch is that two different inserts are provided for the lower cowl part – one with the perforated vents and one blank.

Both shrouded and unshrouded exhausts are provided. Each individual exhaust stack is hollow at the end and attached to the sprue via the locating tab – there will be no nasty scars on the facing surfaces of these parts. The fit of the stacks to their mounts looks pretty solid too, especially the shrouded exhausts.

The cockpit is very complete, offering a number of important optional parts including two styles of instrument panel, three different auxiliary switch panels, two instrument coamings, pressed metal and bolted pilot's seats, alternate gunsights (each a lovely little assembly in its own right), optional beacon and radar controllers and receivers plus different photo-etched harness straps depending on whether the seated pilot is used or not. The instrument panel is a sandwich of clear and grey plastic parts, with decals supplied for the dials themselves. Don't worry about the apparent lack of detail on the front of the decals. The instrument face detail is actually printed on the back of the decals, which is then viewed through the clear plastic lens. The detail in the front office really is quite remarkable, right down to the provision of two styles of throttle handle. An optional life raft pack (Part Z12 – at least I assume it is a life raft pack) may be attached to the seat if the pilot is not being used. The cockpit also includes a full-length oxygen hose. This needs to be partially cut off if the seated pilot is employed. As far as I can tell, the only thing missing is the raised canopy rails at the cockpit upper edges.

The radios and fuel tank behind the pilot are equally good. It is pleasing to see that the fuel filler pipe (Part D16) has been included here. It has been a missing link in other Mustang kits.

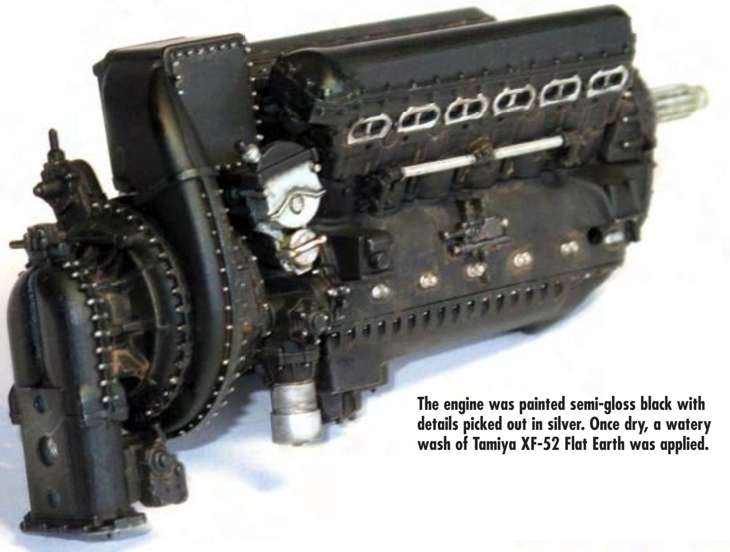
The cockpit is designed around a central core that includes the flat floor, front firewall, instrument panel, pilot's seat and rear fuel tank. The engine assembly plugs into the front of this cockpit core. The sidewall detail is attached to a separate frame on each side, which in turn are attached to the fuselage sidewalls.

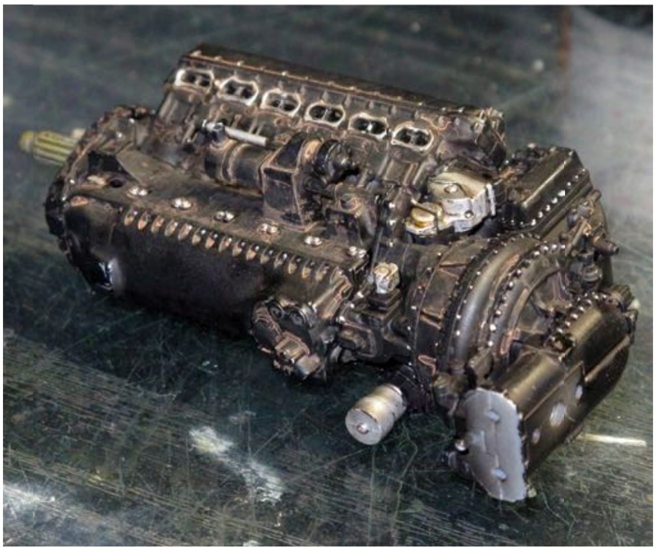
The prominent radiator and oil cooler ducting receives a good deal of attention. It is made up from both plastic and photo-etched parts. The vents may be moved open and closed after assembly.

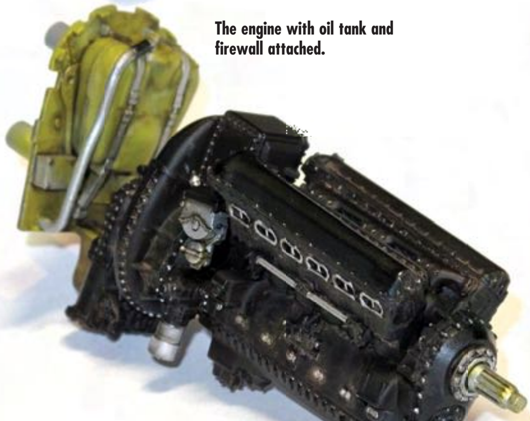
As with the Spitfire, control surfaces are fully moveable thanks to metal rods and photo-etched hinges. Alternative elevators are supplied – one set metal skinned and one set fabric. The fabric strip and stitching texture is beautifully done.

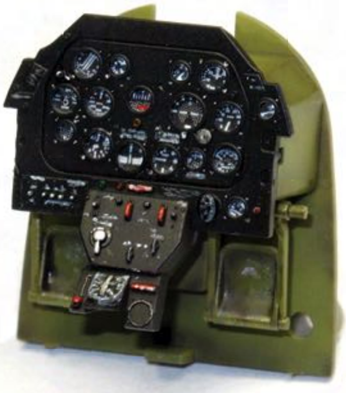
The flaps may also be moved after assembly via metal rods and poly caps, but if you wish to drop the flaps permanently Tamiya has thoughtfully provided a cover to glue over the wedge-shaped recess at the top inboard area of the flaps.

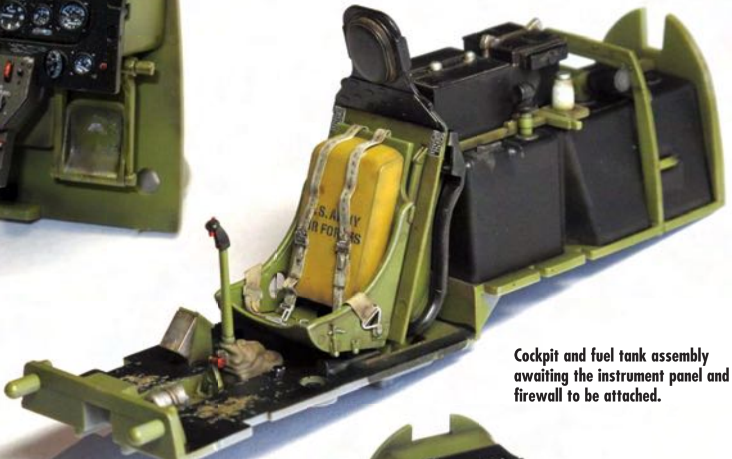
➤

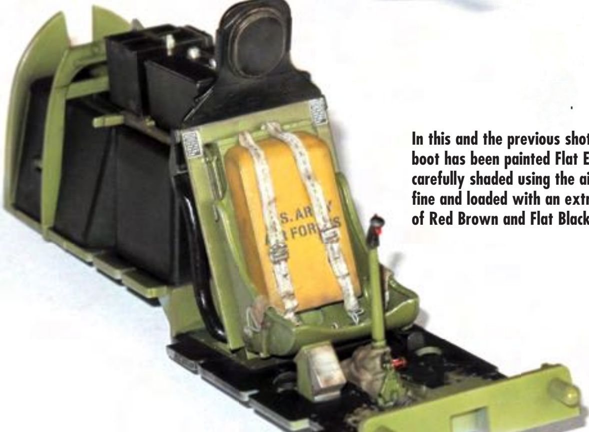

The engine was painted semi-gloss black with details picked out in silver. Once dry, a watery wash of Tamiya XF-52 Flat Earth was applied.

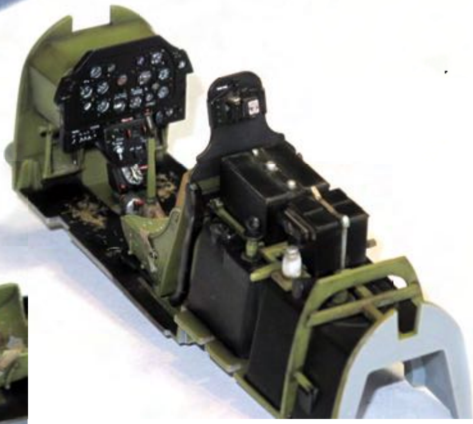

The brown wash is much more obvious when the engine is placed on a darker background.

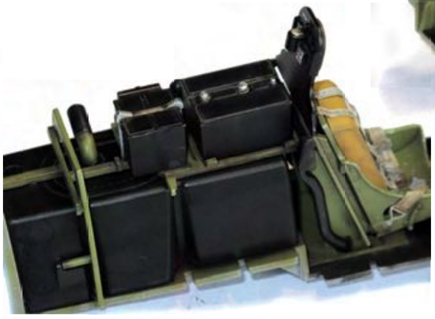

The engine with oil tank and firewall attached.

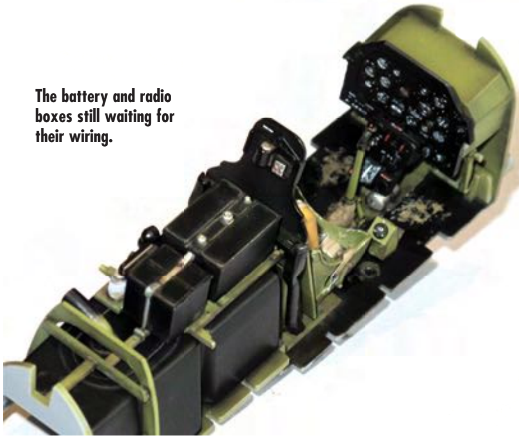

The completed instrument panel with hand-painted screw heads and placards added to 'busy it up' a bit.

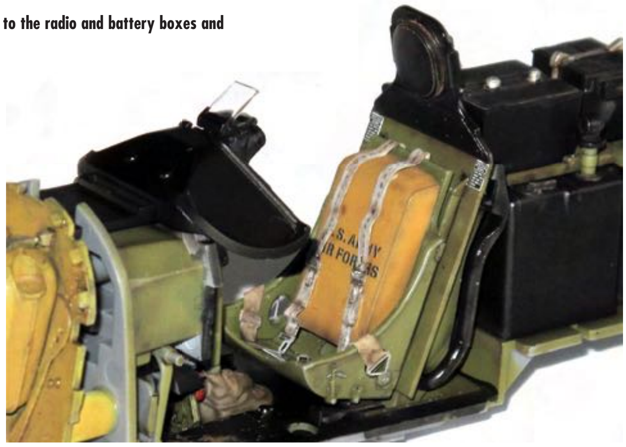

Cockpit and fuel tank assembly awaiting the instrument panel and firewall to be attached.

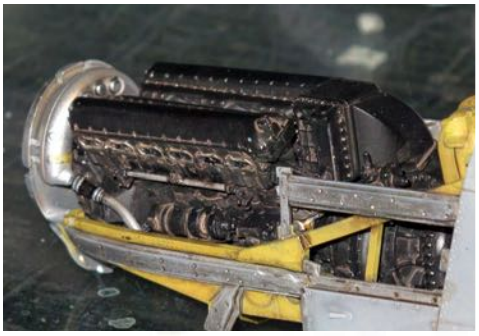

In this and the previous shot, the joystick's boot has been painted Flat Earth and carefully shaded using the airbrush set very fine and loaded with an extremely thin mix of Red Brown and Flat Black.


Tamiya XF-59 Desert Yellow was used to represent timber showing through scratches on the black cockpit floor.


A Flat Earth wash was applied to the radio and battery boxes and wiring was added later.

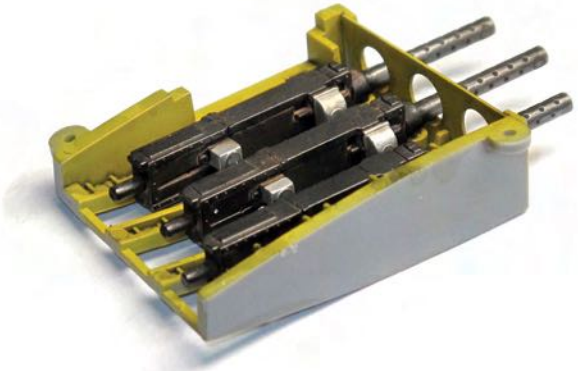

The battery and radio boxes still waiting for their wiring.


The instrument panel shroud and gun sight have been fitted in this shot. Life raft backrest is painted dark yellow and 'dirtied up' by lightly spraying the edges with the black/brown mix.

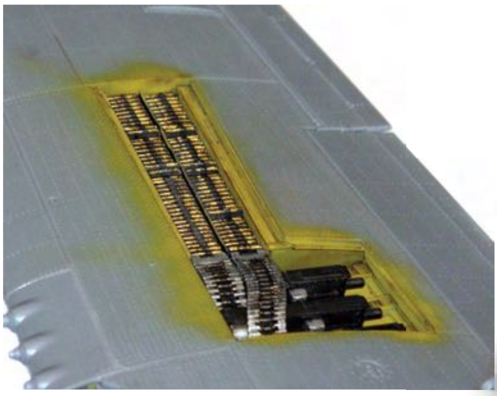


The completed engine assembly is fitted to the airframe.

.50 cal painted, weathered and ready for installation.



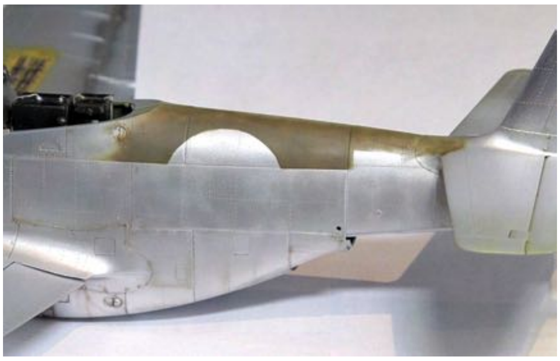
The machine guns were first painted Flat black and once dry, were polished with a cotton bud dipped into graphite dust. A wash of very watery XF-64 Red brown was then applied.



Wing gun bays were first painted zinc chromate yellow. This is my own mix of Tamiya XF-4 Yellow Green with about 5% XF-64 Red Brown. Those beautiful gunmetal perforated cooling jackets will never be seen again after installation.

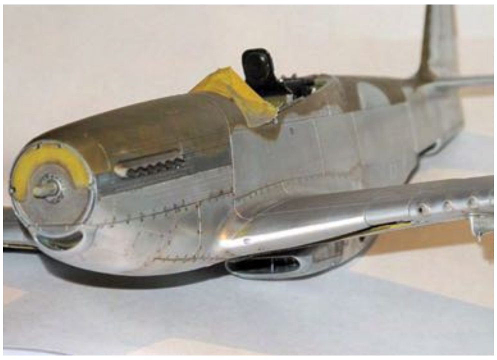
Above: Centre gear door assembly painted and weathered but not quite ready for installation. I noticed that in most photographs of P-51Ds with their centre gear doors open that the panel on the inside of the doors was painted zinc chromate yellow. So with a quick mask and spray job this was easily achieved.

Engine cowling panels were sprayed individually with slightly different shades of silver.



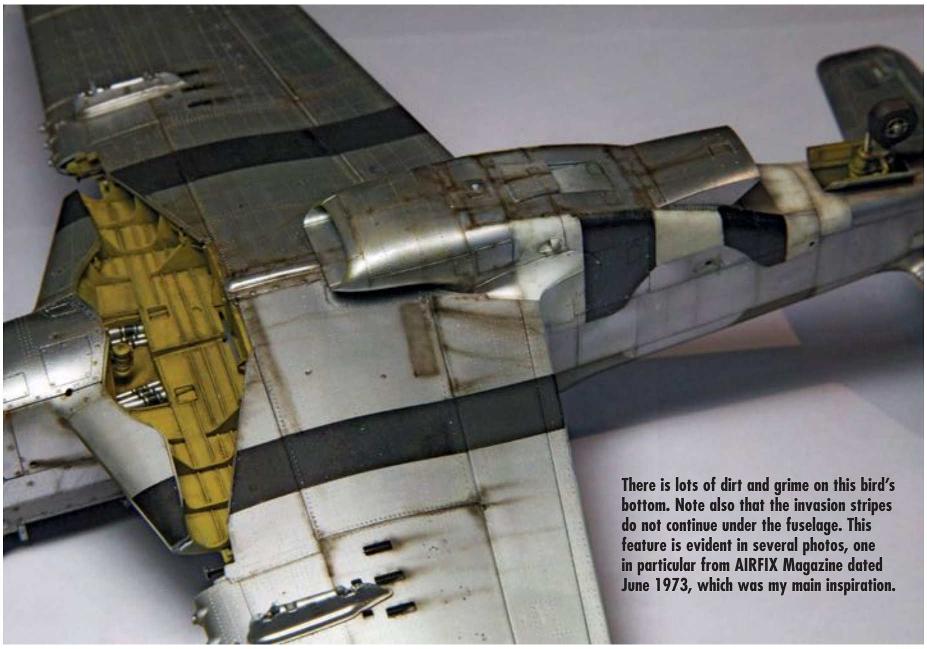
After a coat of silver, the fuselage was masked around where the markings were to be applied. In this shot, the masks have been removed, revealing a slightly uneven edge. Hopefully this represents the hand-painted quality of this scheme.

> ***"With this kit the biggest challenge to me was always going to be the painting."***

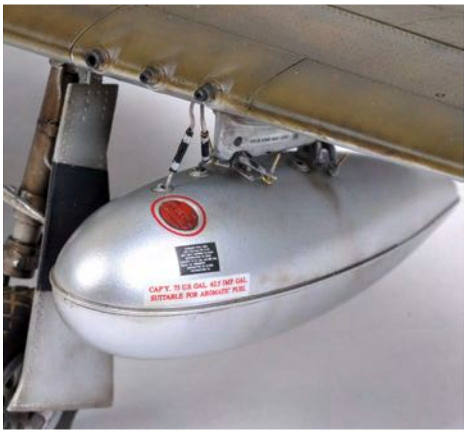


The Olive Drab application on the fuselage is now completed.

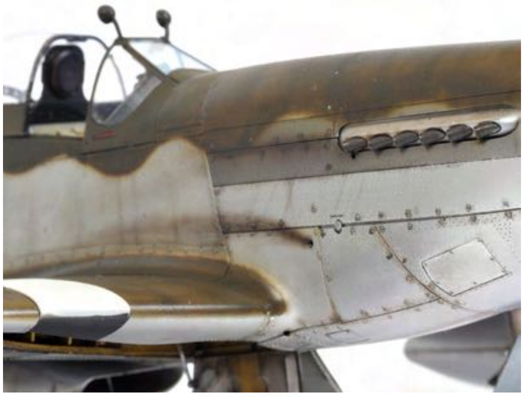
The upper flying surfaces have received their initial coat of Olive drab and are now getting their white ID stripes.



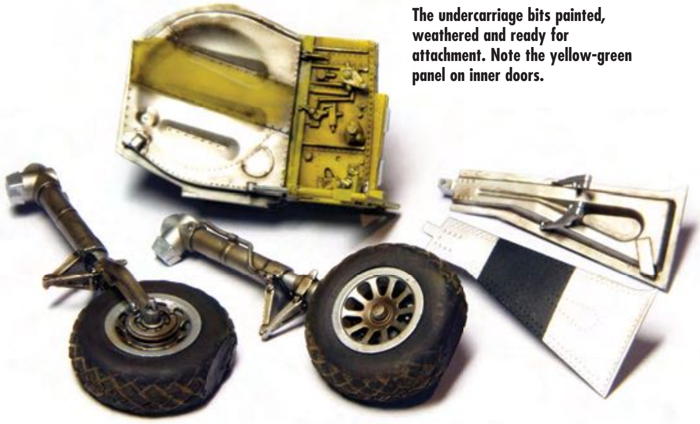
There is lots of dirt and grime on this bird's bottom. Note also that the invasion stripes do not continue under the fuselage. This feature is evident in several photos, one in particular from AIRFIX Magazine dated June 1973, which was my main inspiration.



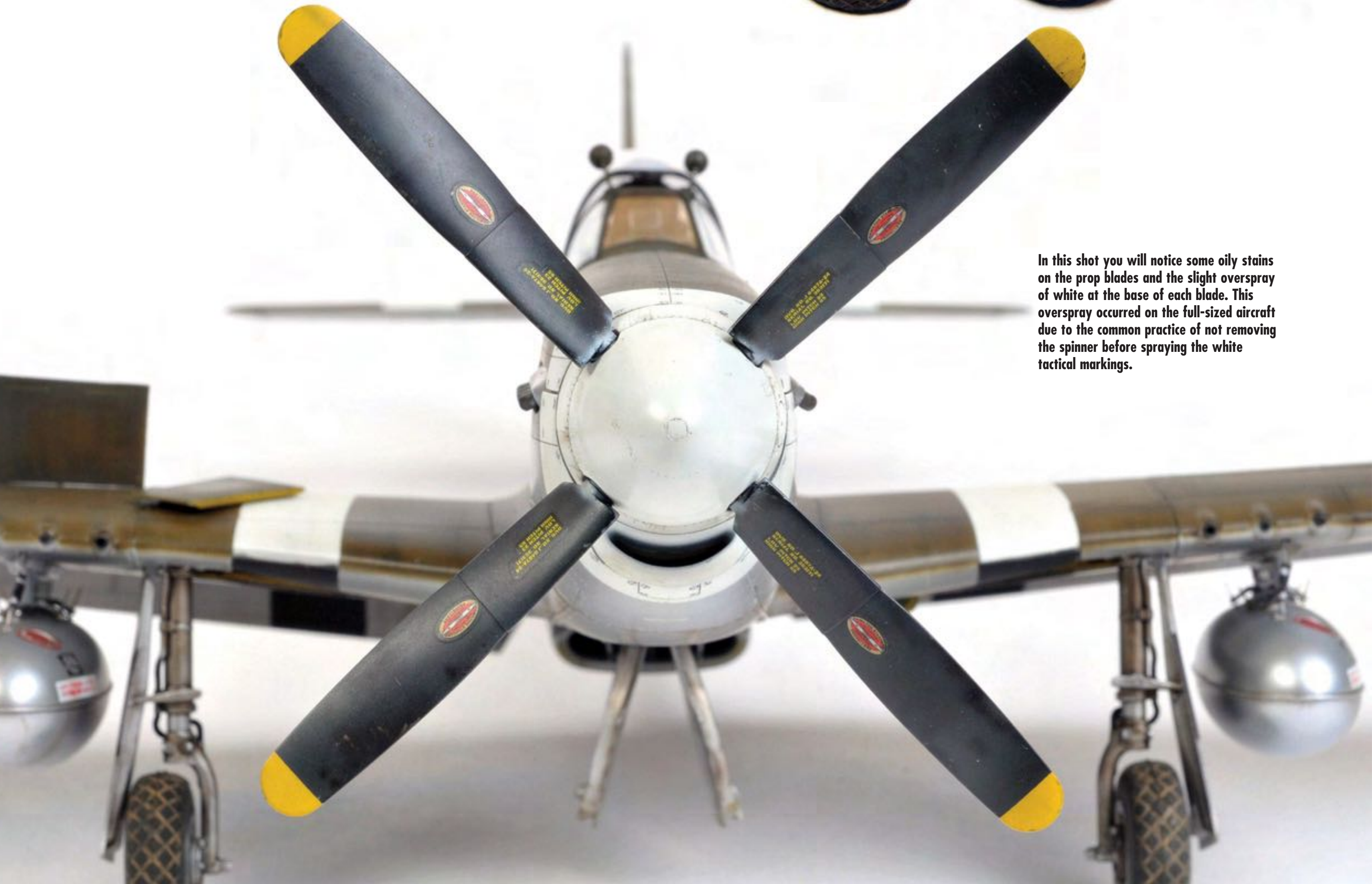
Two additions that I did feel necessary were fuel lines from the drop tanks to the wings and adjustment pins to the wing rack sway braces. The fuel lines were fabricated using fine solder wire and brass tube for the joiners. The sway brace pins were made with brass wire and P/E brass washers from the spares drawer. Subtle weathering was also added to the tanks with some airbrushed shading and fuel runs.



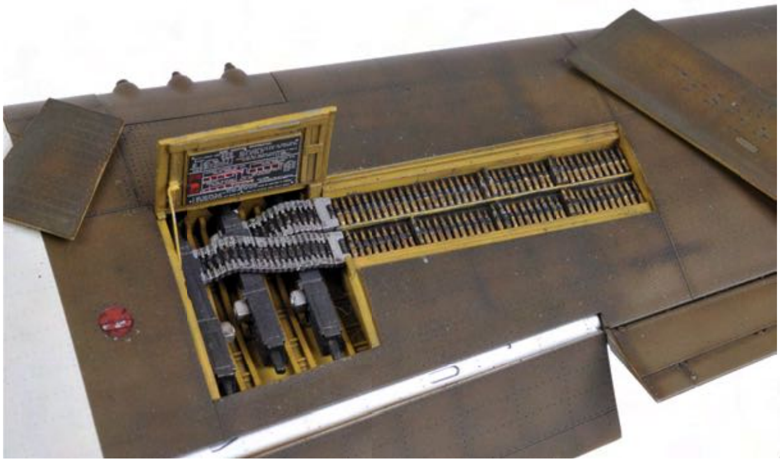
The streaky oil stain from the lower engine access panel was common on most P-51Ds.



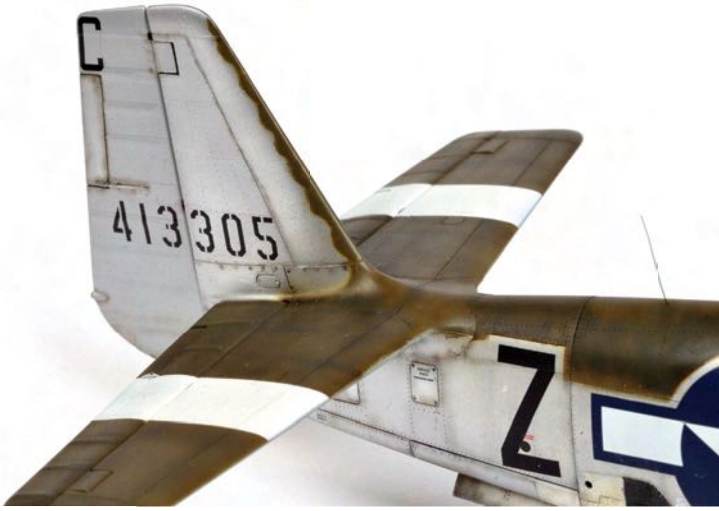
The undercarriage bits painted, weathered and ready for attachment. Note the yellow-green panel on inner doors.



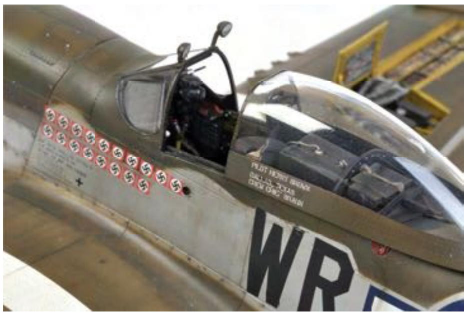
In this shot you will notice some oily stains on the prop blades and the slight overspray of white at the base of each blade. This overspray occurred on the full-sized aircraft due to the common practice of not removing the spinner before spraying the white tactical markings.



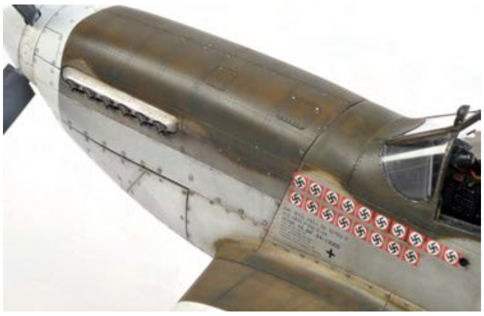
The starboard wing armament access panels were left open. Another addition I made was the open locking arm using fine brass wire.



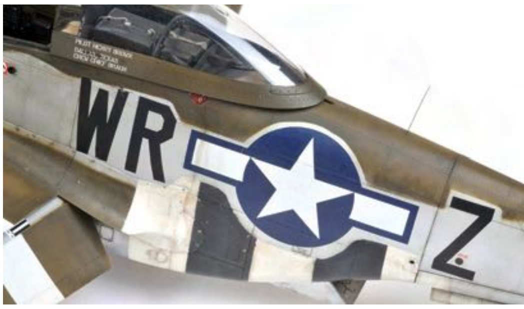
The Olive Drab on the vertical tail's leading edge is scalloped, which is unusual. I sprayed it freehand, using a faint pencil guideline. Also unusual, to me anyway, is the whip antenna on the rear fuselage spine. This was made from nylon monofilament.



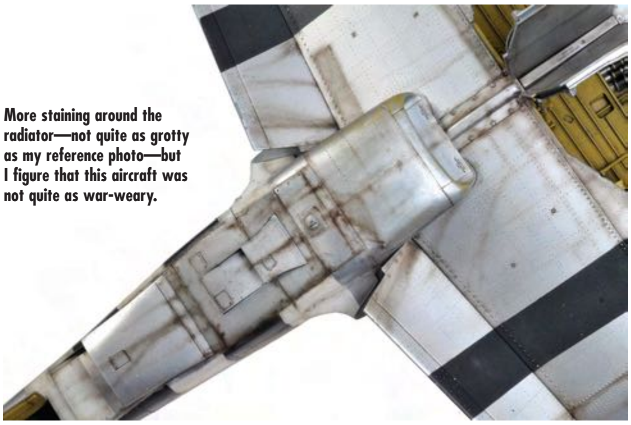
This shot shows the wiring on the radio has finally been added. The twin rear view mirrors have had a fake reflection added to their silver lenses.



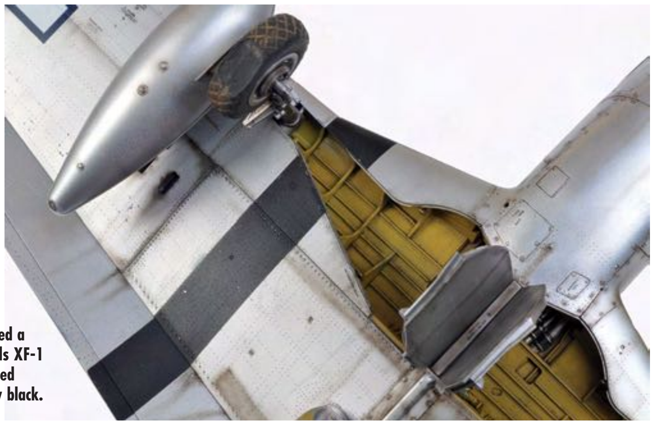
Each screw head on the Olive Drab cowling has been painted silver to indicate constant wear. Elsewhere, the locking screws have received a black wash.



The rather rough appearance of the invasion stripes is appropriate due to their hurried hand-painted application, probably the night before D-Day. Note also the stain running from the fuel-filling point.



More staining around the radiator—not quite as grotty as my reference photo—but I figure that this aircraft was not quite as war-weary.



The wheel wells received a wash of Tamiya enamels XF-1 Flat Black and XF-64 Red Brown mixed to a dirty black.

Two different sets of wing tip navigation lights are included.

Tamiya has supplied two fully fitted out wing machine gun bays. Ammunition trays are also included. The upper access panels are separate parts and may be posed open or closed. Tamiya has included two full sets of access panels, so you can cut up one set when you want to display the bays, and leave the other intact for when they are closed. Very thoughtful. The hollowed-out muzzles and blast tube for each wing are contained in a separate leading edge insert.

The main wheel well is made up from 22 parts. Structural detail inside is stunning but more importantly Tamiya has gotten the shape of the straight rear wall of the wheel well correct. There are a number of visible ejector pin marks in the wheel well, but these are an inevitable by-product of the tricky injection moulding around the deep detail in this area.

The landing gear and doors are all well detailed and cleverly designed to be posed either raised or lowered. The alternate parts may be interchanged after the model is finished, so your tarmac-bound Mustang might find itself in flight on the supplied display stand at some point in the future. The landing gear legs are screwed in place behind inserts in the leading edge of the wings.

75 gallon metal and 108 gallon paper drop tanks are supplied for the two wing racks. The sole set of propeller blades is Hamilton Standard Cuffed.

Three different styles of sliding canopy are included -1 Dallas (part P1), a -2 (part M1) and a -6 (part N1) - as are four styles of rear vision mirror. Self-adhesive canopy masks are a thoughtful addition, but you will have to cut them out yourself – no great chore for such a simple canopy and windscreen.

A black display stand and two metallic nameplates will help put your Mustang in flight. The stand is attached to the model by a removable panel on the bottom of the fuselage. The stand may then be screwed into place.

Two pilot figures round out the package – one standing and the second seated in full flight gear. I like the clear goggles provided for the seated pilot!

Markings are supplied for three aircraft plus extensive stencilling.

BUILDING TAMIYA'S MUSTANG

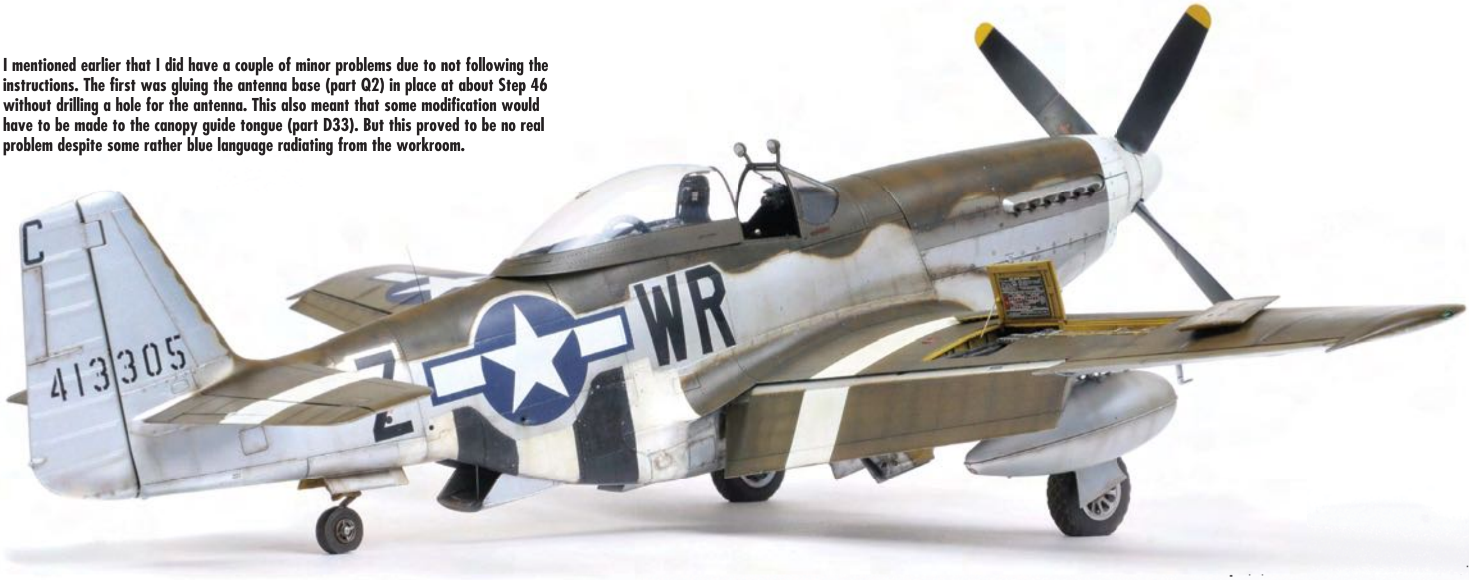
Construction is quite complex but if you follow the superb instructions carefully, you won't have any problems. I did encounter a couple of very minor problems but these were due entirely to me arrogantly not following the instructions and I don't want to talk about it ever again! But I probably will …

With this kit the biggest challenge to me was always going to be the painting. Over the years I have avoided making models that have to be finished in bare metal. As this build was a commission and my client requested the model be finished in the markings of Capt. Henry Brown, whose aircraft was silver with field-applied olive drab upper surfaces, I had to bite the bullet and buy a selection of the superb 'Alclad' metallic lacquers.

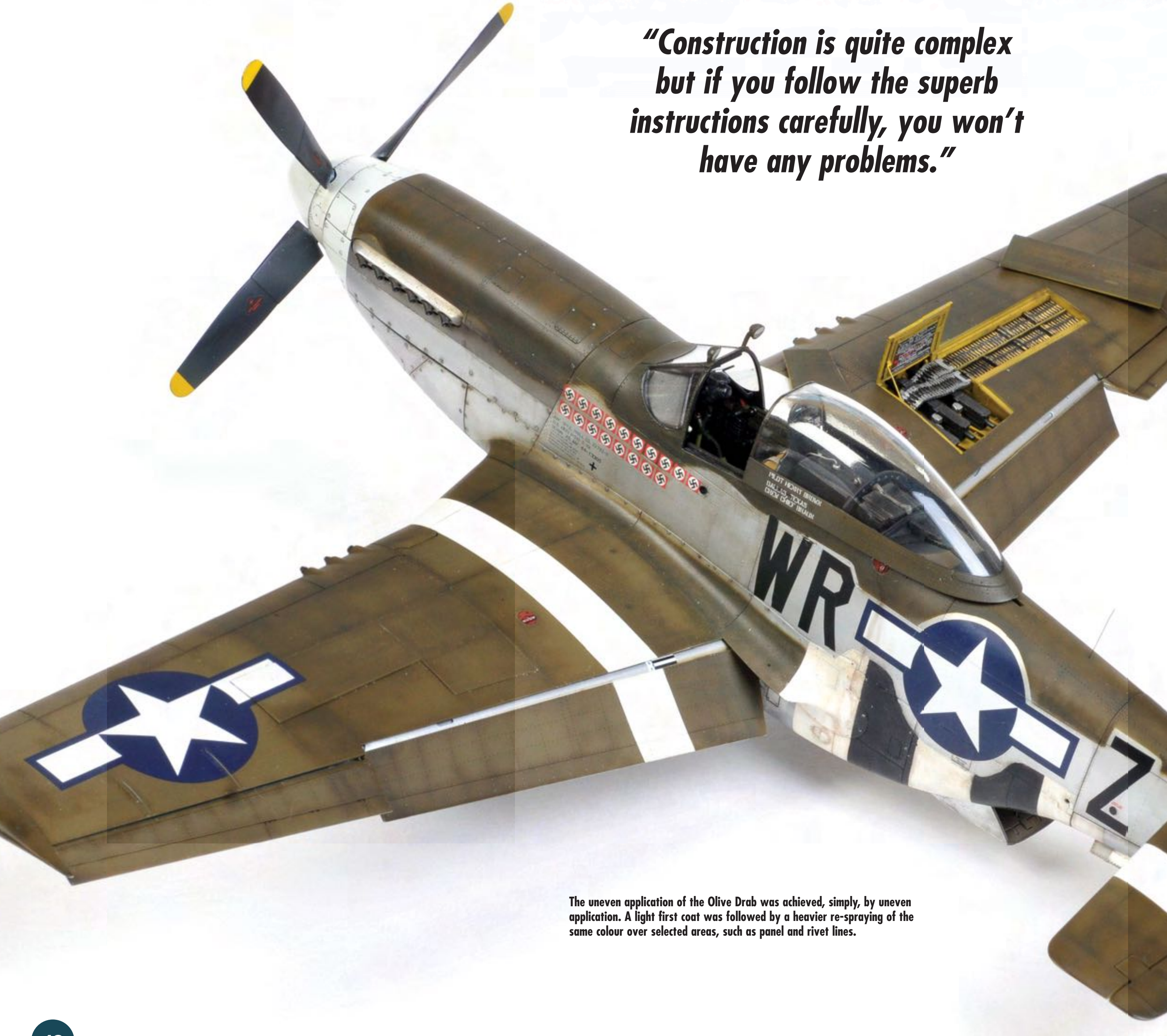
After various tests I was suitably impressed with the finishes I was achieving and so I began construction.

The images take up this part of the story.

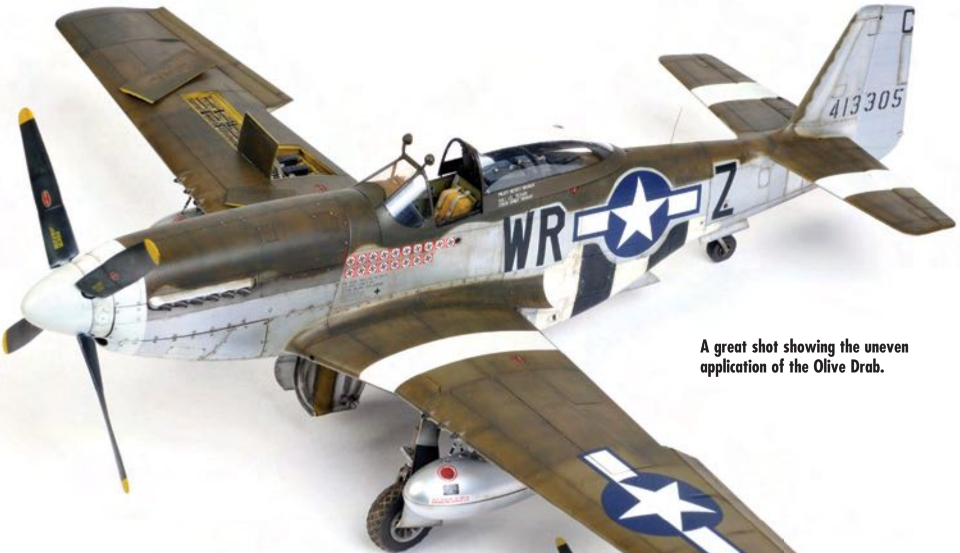
I mentioned earlier that I did have a couple of minor problems due to not following the instructions. The first was gluing the antenna base (part Q2) in place at about Step 46 without drilling a hole for the antenna. This also meant that some modification would have to be made to the canopy guide tongue (part D33). But this proved to be no real problem despite some rather blue language radiating from the workroom.



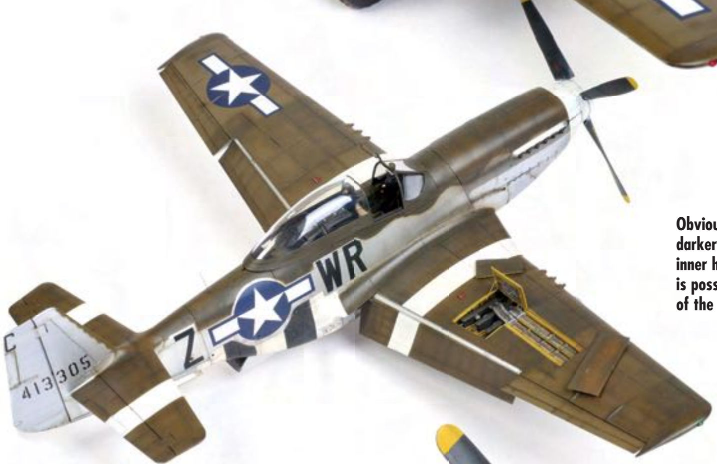
> ***"Construction is quite complex but if you follow the superb instructions carefully, you won't have any problems."***



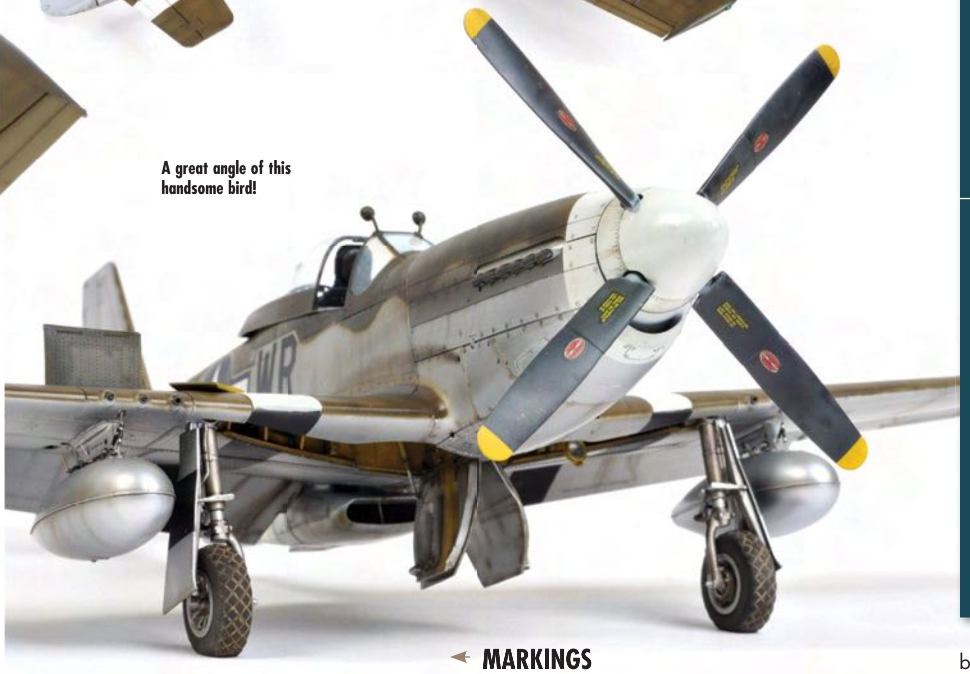
The uneven application of the Olive Drab was achieved, simply, by uneven application. A light first coat was followed by a heavier re-spraying of the same colour over selected areas, such as panel and rivet lines.



A great shot showing the uneven application of the Olive Drab.



Obvious from this angle is the darker shade of Olive Drab on the inner half of the wings. I think this is possibly due to the over painting of the wing invasion stripes.



A great angle of this handsome bird!

MODELSPEC

Tamiya 1:32 P-51D Mustang. Kit No. 60322

Materials Used:

EagleCals decals EC#140 P-51Ds
0.335mm solder wire
Brass wire and tube
Invisible mending thread (nylon mono-filament)

Paints used:

Alclad II Lacquer:	GREY PRIMER ALC 302 AIRFRAME ALUMINIUM ALC-119 WHITE ALLUMINIUM ALC-106 ALLUMINIUM ALC-101 PALE BURNT METAL ALC-104
Gunze Sangyo Acrylics:	H58 INTERIOR GREEN H52 OLIVE DRAB I
Tamiya Acrylics:	XF-1 Flat Black XF-64 Red Brown X-18 Semi-Gloss Black XF-62 Olive Drab XF-4 Yellow Green XF-59 Desert Yellow XF-52 Flat Earth
Tamiya Enamels:	XF-1 Flat Black XF-64 Red Brown
Testor's Polly Scale:	F404106 Flat Finish

References:

Green, B. How to build Tamiya's 1:32 P-51 Mustang. ADH Publishing
Newby Grant, W. P-51 Mustang. Chartwell Books Inc.
Freeman, Roger, A. The Mighty Eighth in Colour. Arms and Armour
P-51 Mustang in Action. Squadron/Signal Publications

⊕ Best plastic kit that I have ever built

⊖ Nothin'

Rating: 10 out of 10

Tamiya kits are distributed in the UK by The Hobby Company Limited www.hobbyco.net Limited www.hobbyco.net

MARKINGS

This is quite a well-known aircraft, which is sometimes depicted in profiles and in plastic with the name "Hun Hunter" and/or "Texas" inside a black arrow below the exhaust.

Despite checking all the books and online sources at my disposal, I could not find any evidence that the aircraft ever carried the "Hun Hunter / Texas" lettering, although it did have the black arrow under the exhaust late in its career, probably with the word "Bulldogs" in white lettering for at least some of the time. The aircraft certainly carried the words "Dallas Texas" under Capt. Brown's name on the canopy frame, so this might be the source of some of the misapprehension.

I chose to depict the aircraft before this was arrow was applied, but after the kill marks had been painted under the cockpit. My principal inspiration was a large photo from a 1973 issue of Airfix magazine. I used this as a guide to the camouflage scheme and the weathering.

Decals were sourced from EagleCals item no. EC#140, "P-51D Mustang Part 2".

CONCLUSION

There really is not much to say in conclusion. I have built a lot of models in my time but this is simply the best that I have ever had the pleasure to work on.

It is more complex than some other kits, but the superb instructions will guide you from start to finish. Ignore them at your peril!

Tamiya's 1:32 scale P-51D Mustang is a brilliant model. With so many colourful and varied schemes available, I don't know if I can stop at one. •

ESEBECK'S ALBATROS

Gary Edmundson builds and improves Eduard's 1:48 scale Albatros D.II.

First flown in the late months of 1916, the Albatros D.II was introduced to the fighter units as an improvement of the recently developed D.I. Sporting a modified strut arrangement to allow the upper wing to sit lower and afford better visibility for the pilot, the aircraft made it to the front lines at the same time as the D.I, which had suffered some production delays. A total of 275 D.IIs were built, with the redesigned Albatros D.III taking over within a very short time in early 1917.

Eduard's kit of the D.II was built to represent one of the earlier D.IIs that still had the fuselage-mounted radiator and the coolant tank located above the engine. This aircraft was the mount of Hauptmann Rudolf Freiher von Esebeck from KG2 Staffel 11.

Before commencing the construction of the model, the elevator and rudder were removed carefully with a sharp #11 blade so that they could be positioned in an articulated fashion.

FUSELAGE INTERIOR

The wooden components of the interior were airbrushed with Tamiya's Buff XF-57 as a base to paint them in a woodgrain finish. Future floor finish was sprayed over this as a protective layer. Some of the components were left on the plastic sprue tree for ease of handling. Raw Umber and Burnt Sienna oil Winsor & Newton oil paints were combined and thinned with mineral spirit, then brush painted onto the gloss surface of the components to produce a woodgrain effect. The Burnt Sienna colour was used minimally to reduce the reddish effect it gave.

The cockpit details were painted using Vallejo acrylic paints. The metal ammunition bins were first airbrushed with an acrylic dark grey, and then dry-brushed with a mixture of silver enamel and Raw Umber oil paint. The Mercedes engine, coolant tank and twin Spandaus were painted similarly.

The kit provides photo-etched seatbelts, along with other details. These metal parts were primed with Tamiya's lacquer grey primer (decanted from the can into an airbrush cup), and then finished with Vallejo acrylic colours. Paint does not take well to these parts and I prefer to make seatbelts from lead foil, but the buckles were nicely rendered so I positioned and painted them with care. The seatbelts also have an annoying tendency to "spring" out of position from the seat.

After all of the components were painted, weathered and assembled into one of the fuselage halves, the fuselage was glued together and gaps filled with Tamiya's lacquer-based putty.

SPINNER AND NOSE ASSEMBLY

One of the more notable problems I find with Eduard's kits of the Albatros is the way the area around the propeller spinner looks. The D.II had a smaller diameter spinner than the one supplied in the kit, and was in fact more conical than the kit part. There was also a visible gap between the spinner and nose of the fuselage when viewed from the front. The plastic face in behind the spinner on the model's fuselage was scraped away to make a deep groove that simulated the thin edge of the engine cowling. The kit's propeller spinner was re-shaped with a file and sandpaper to make the outside diameter smaller, and give a more conical appearance.

Another noticeable problem with the kit in my opinion is that the wheels look too small. I took some larger diameter wheels from a Roden Fokker DVII kit and made an appropriately sized axel from styrene tube. The donor kit was picked up at a swap meet for next to nothing so it was a small price to pay. I should have cast resin copies for future projects, but laziness intervened.

PREPARATION FOR RIGGING

To rig the model with the control and stabilising wires required drilling holes in the fuselage and wing surfaces prior to painting. A number 80 drill bit was used to make countersunk holes in the bottom of the upper wing, and complete holes through the lower wing so that "invisible thread" could be anchored and then pulled through the model at a later stage.

The wing and landing gear struts all had their ends drilled out and small lengths of brass rod glued in place to help strengthen the joints when assembled. Corresponding holes were drilled into the wings and fuselage to accept the longer pins.

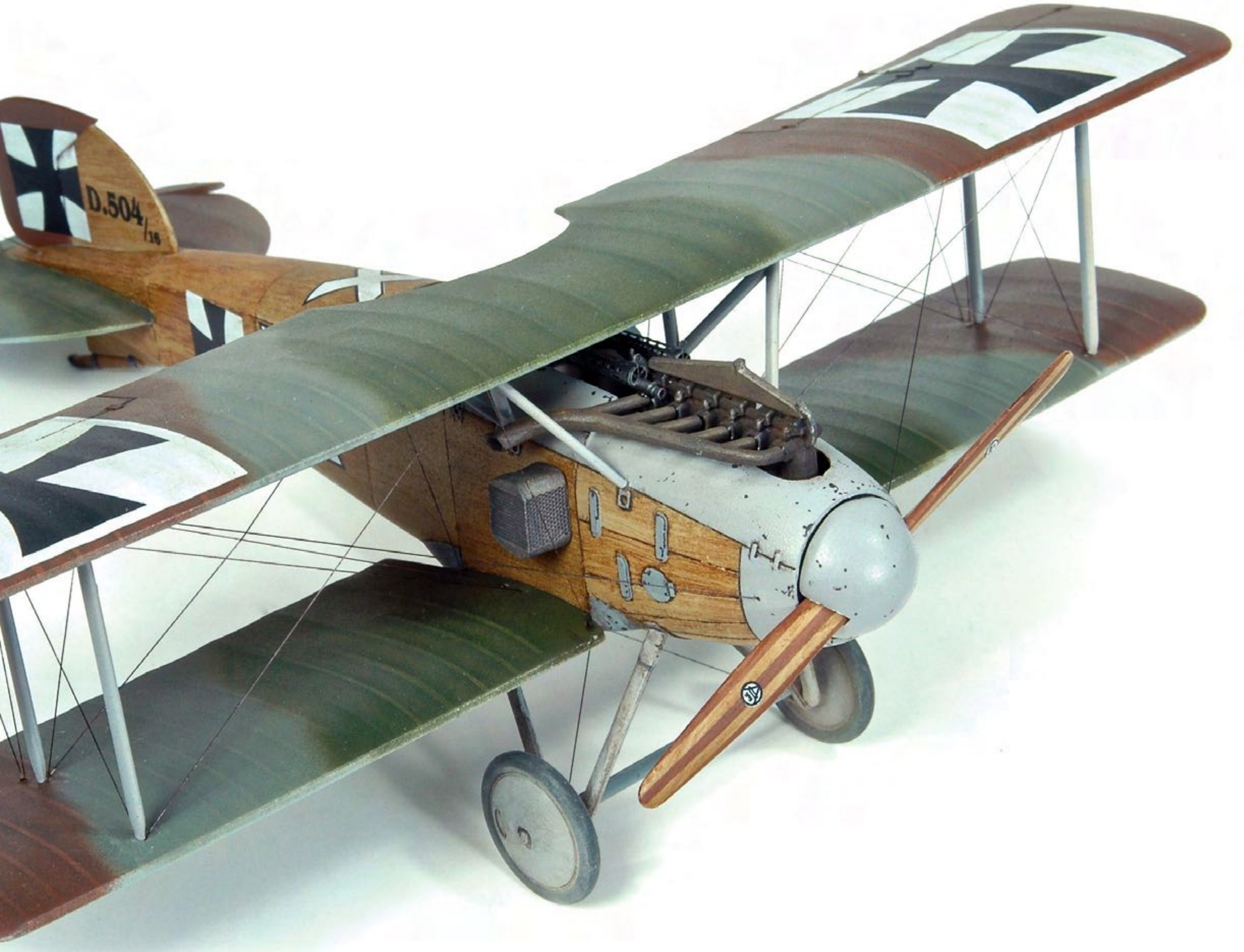
PAINTING

After masking the exposed fuselage components with Tamiya's masking tape, the model's components were all airbrushed with Tamiya's grey lacquer primer. Decanting it from the rattle-can into the airbrush provides good control of the spray, which can be unpredictable and damaging if allowed to pool in large quantities when sprayed directly from the can.

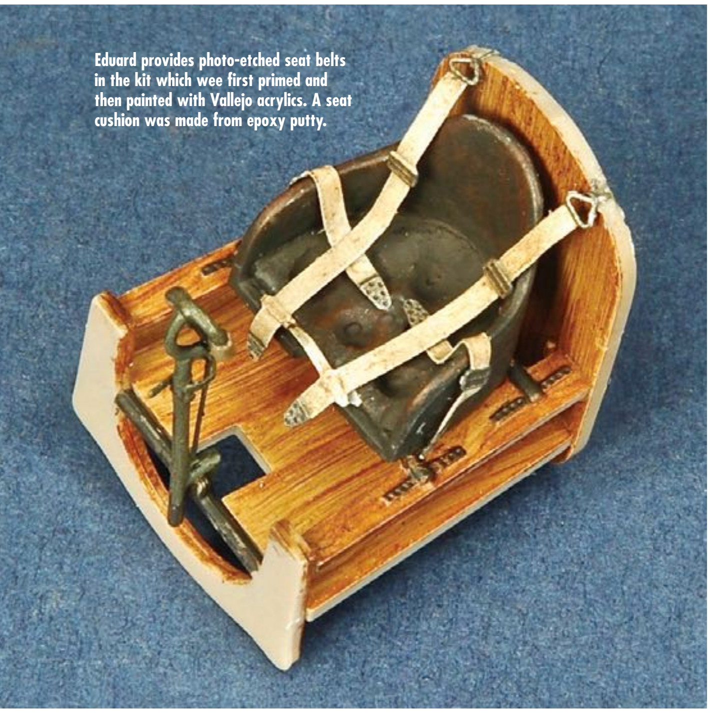
To emphasise the shadows from the wing stringers on the tops of the wings, I used a pre-shadow effect on the upper surfaces. Thin strips of masking tape (1mm or less) were placed on the top edges of all of the wing ribs and forms, and black acrylic paint was airbrushed in thin, controlled lines on top of the tape, allowing some overspray. The strips of tape are removed before painting on the camouflage on the upper wing surfaces leaving a highlighted effect which emphasizes the relief of the frame structure within the wings.

For the woodgrain surface of the fuselage, Tamiya's Buff XF-57 was airbrushed on, with a coat of Future floor finish added afterward to add a gloss surface. The different panel sections of the fuselage were masked off individually, and similar in fashion to how the interior wood surfaces were painted, thinned oil paint was streaked onto the various sections. In between each sectional paint job, a coat of Future was added to protect the existing work from handling, masking etc. Varying mixes of burnt sienna and raw umber oil paints were used to create a slightly different look to each panel.

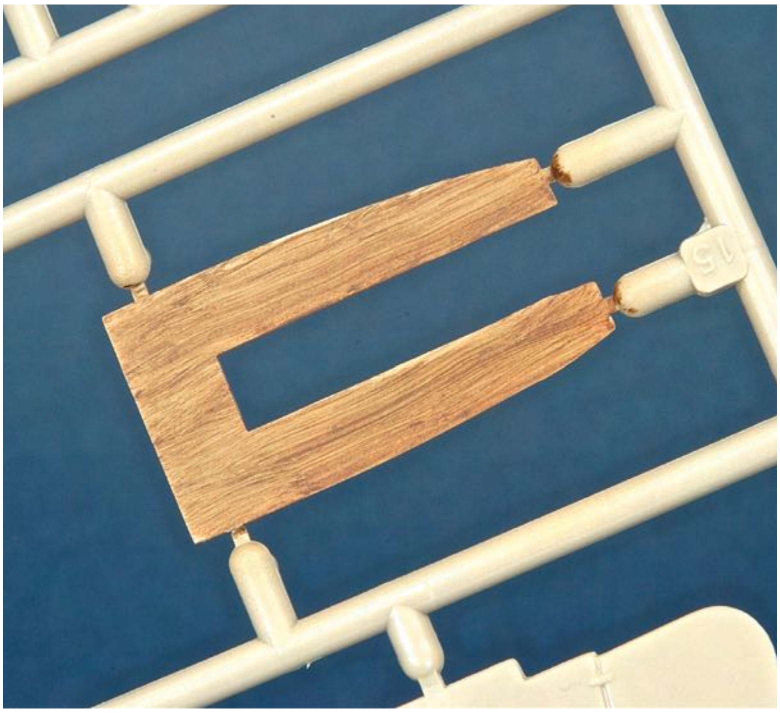
The lower surfaces of the wings were painted a light blue, mixed from a combination of XF-23 Light ➤

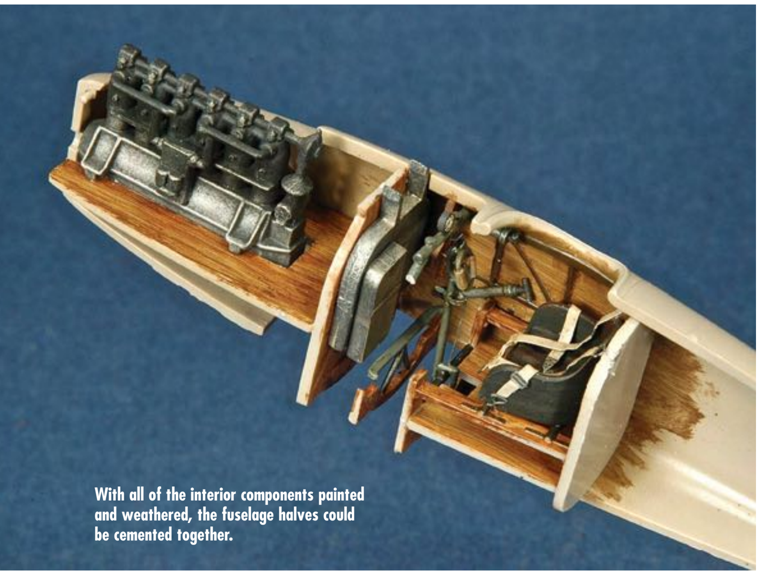


Below: It was easier to leave some of the parts on the plastic sprue tree for the painting process.

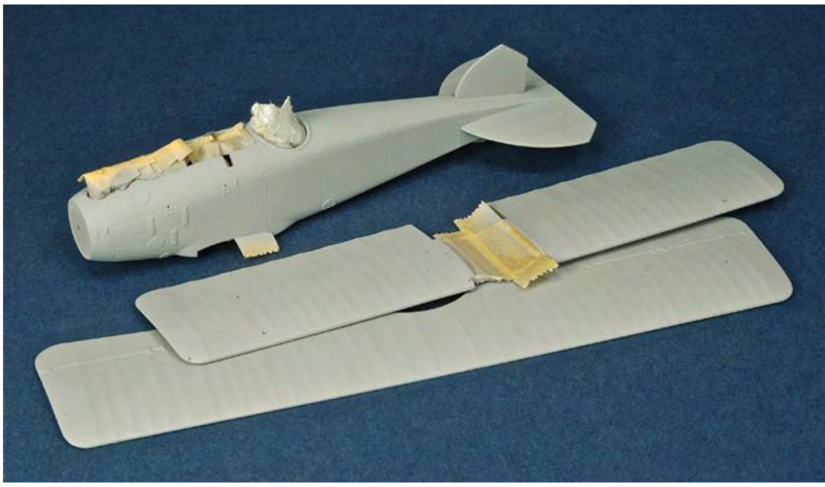


Eduard provides photo-etched seat belts in the kit which wee first primed and then painted with Vallejo acrylics. A seat cushion was made from epoxy putty.

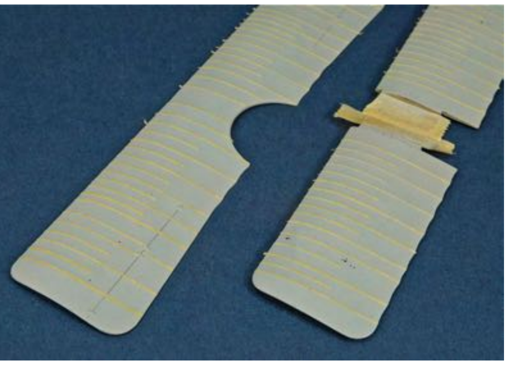




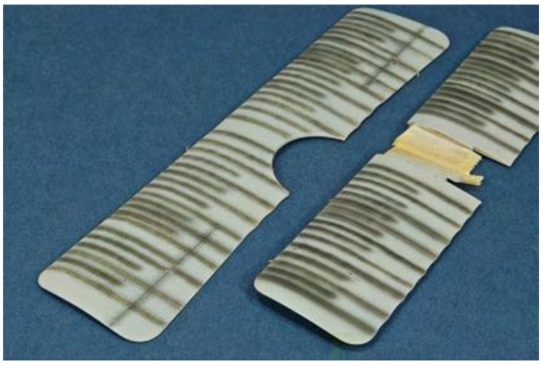
With all of the interior components painted and weathered, the fuselage halves could be cemented together.



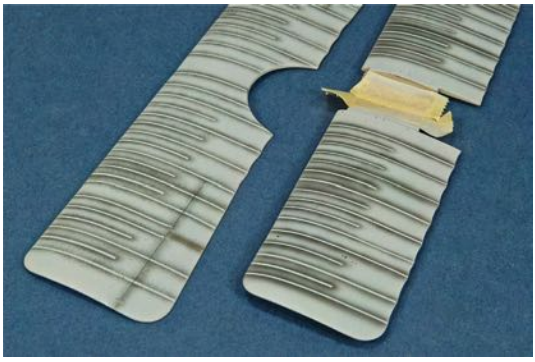
To prepare the surfaces for painting, Tamiya's grey lacquer primer was decanted from the rattle can and airbrushed onto the model's components.



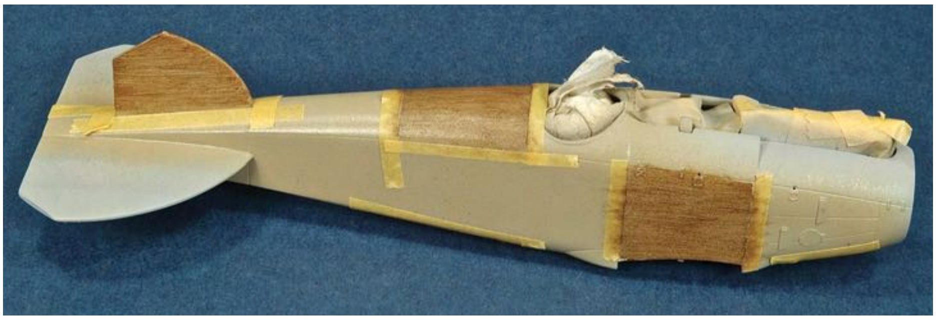
Very thin strips of masking tape were placed over the top edges of the wing's rib detail.



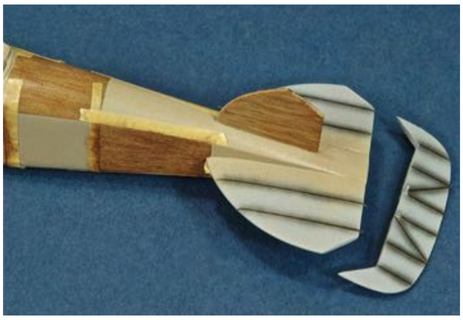
Thin bands of black paint were airbrushed onto the taped lines, allowing some overspray.



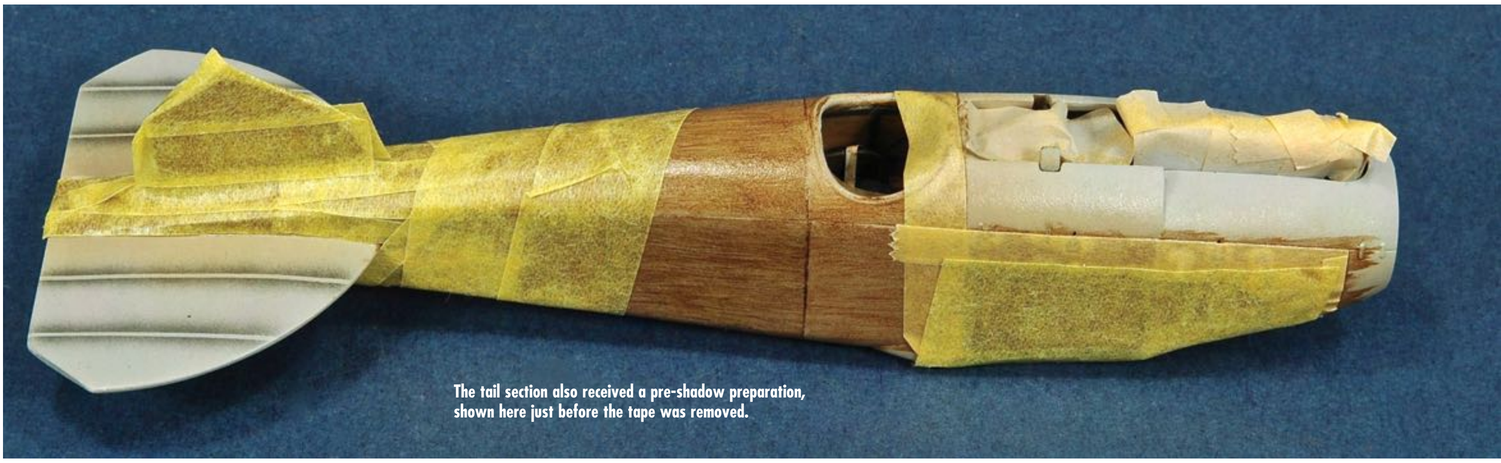
The pre-shadow effect was completed by removing the tape before adding the camouflage colours.



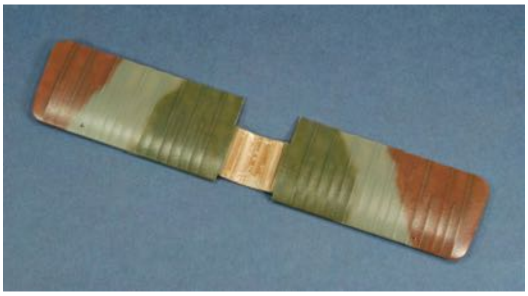
The fuselage was first painted in Tamiya's XF-57 Buff, and then clear coated with Future floor finish. Individual panels were masked and then streaked with oil paint to simulate a wood grain finish.



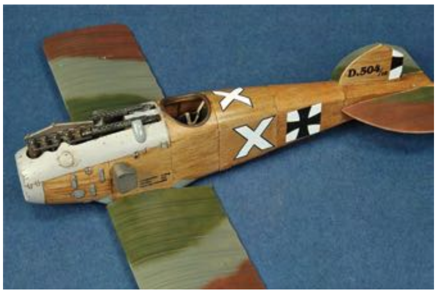
The fuselage was first painted in Tamiya's XF-57 Buff, and then clear coated with Future floor finish. Individual panels were masked and then streaked with oil paint to simulate a wood grain finish.



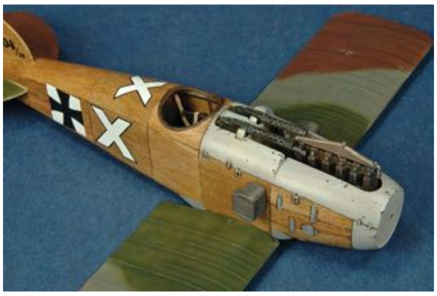
The tail section also received a pre-shadow preparation, shown here just before the tape was removed.



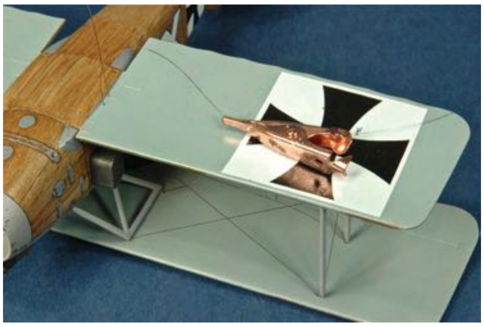
Camouflage on the top of the lower wing assembly has been painted over the pre-shadow lines, showing their effect.



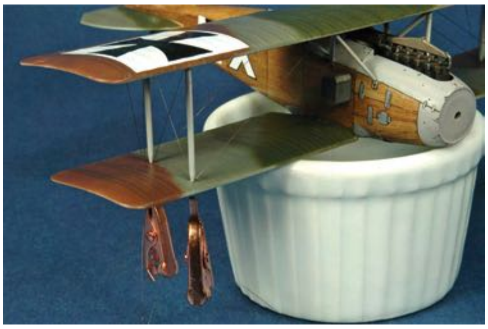
The kit's guns were modified with muzzles made from styrene rod.



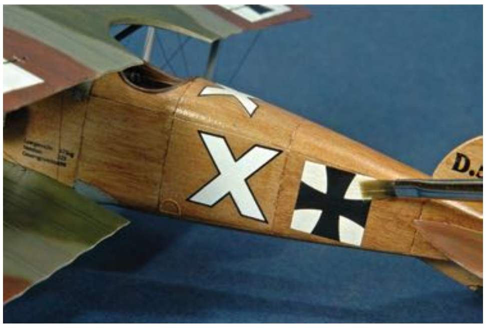
The photo-etched cooling jackets were wrapped around a small drill bit to form them.



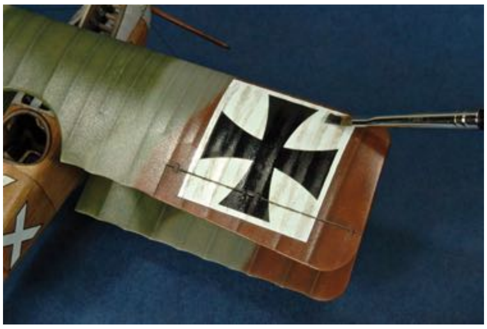
Rigging threads were anchored into the top wing with super glue and then pulled through small holes in the lower wing.



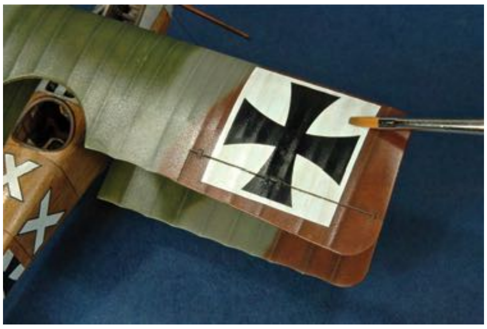
The threads were kept taught while the super glue dried using the weight of copper soldering clips.



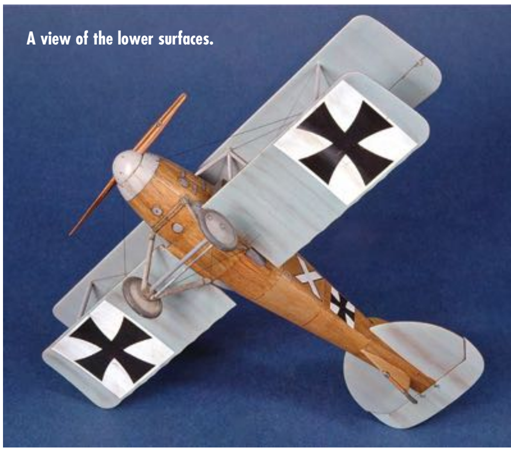
The bright white part of the decals was toned down using grey and brown oil paint which was spread with a dry brush.



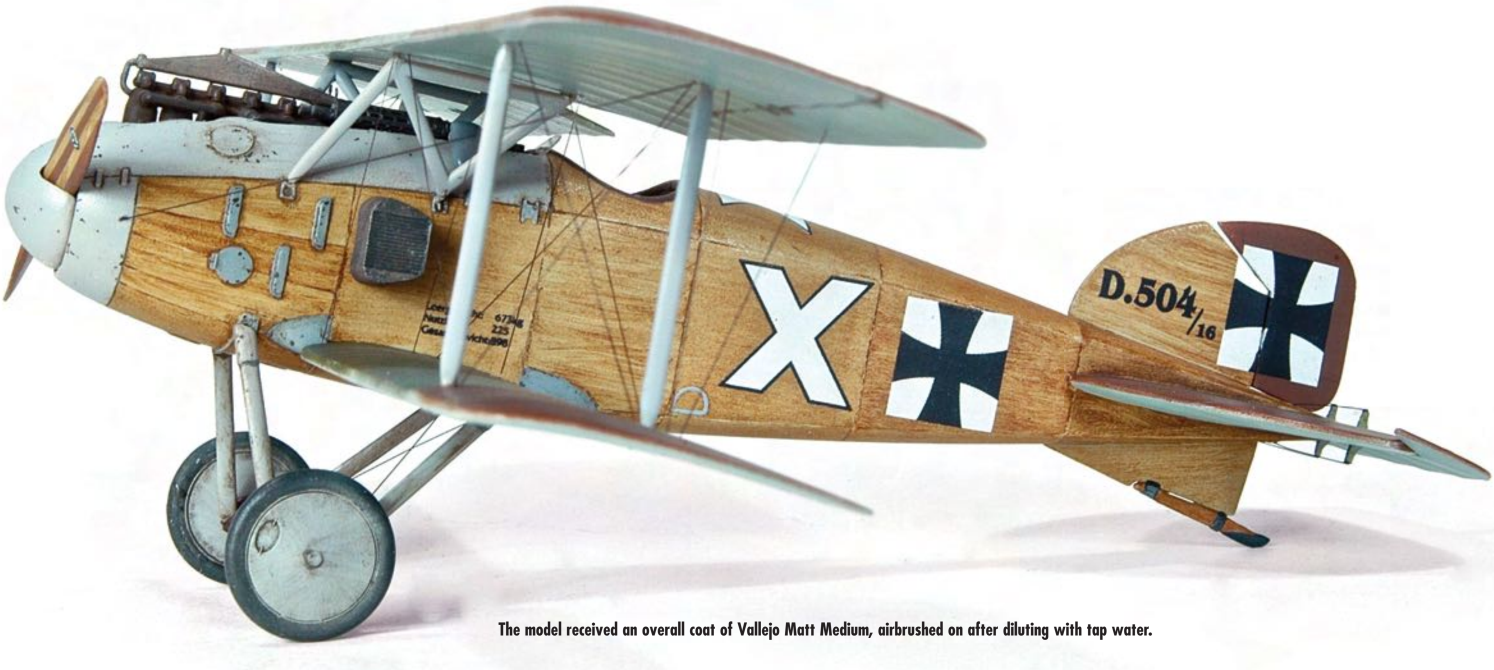
In addition to toning down the stark white appearance, the wing rib detail was enhanced by adding oil paint to the upper wing.



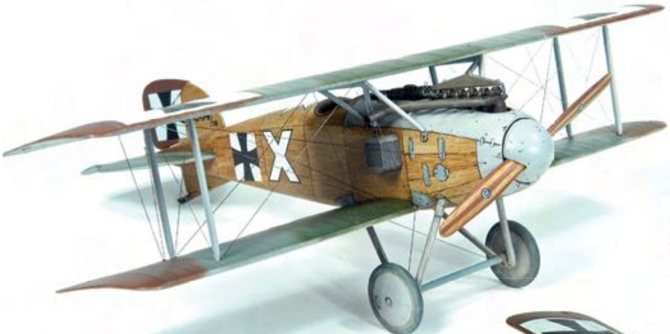
By working in the oil paint to the decal's surface, the effect is quite subtle.



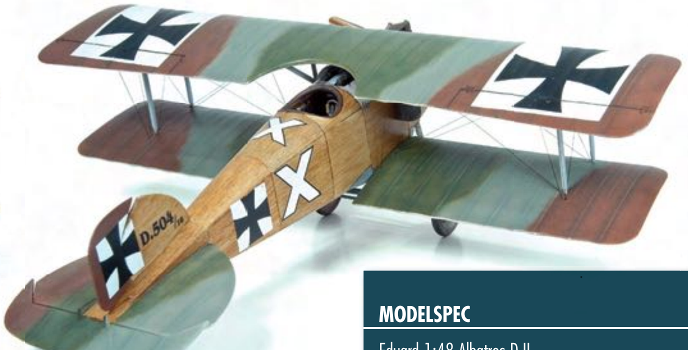
A view of the lower surfaces.

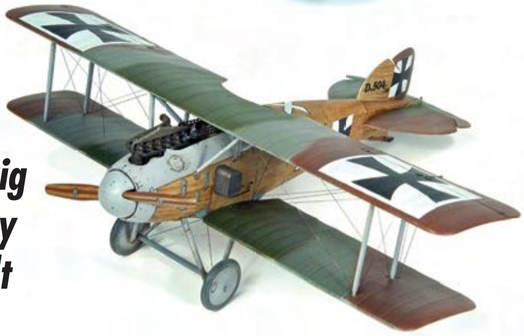


The model received an overall coat of Vallejo Matt Medium, airbrushed on after diluting with tap water.

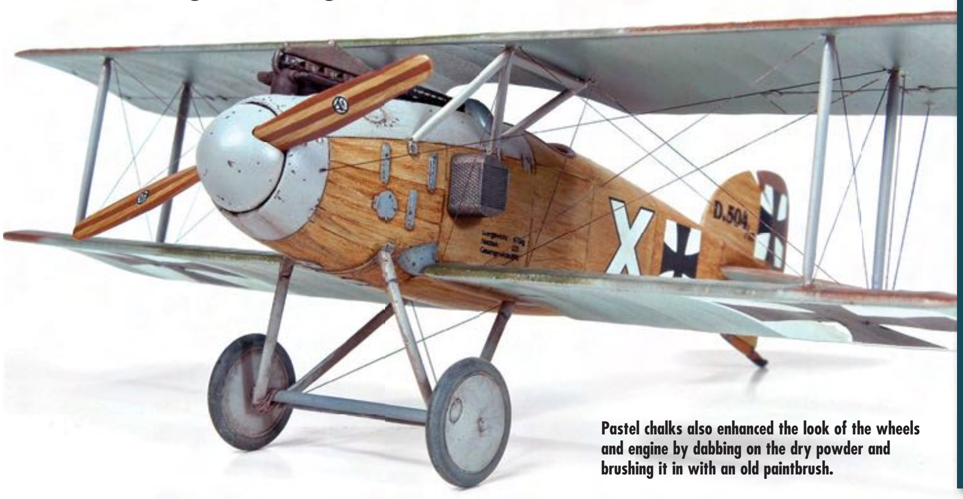


Various paint chips and scratches were painted on using Vallejo's dark grey acrylics thinned with tap water.





> ***"The invisible thread used to rig the model was made visible by running a permanent black felt marker along the length."***



Pastel chalks also enhanced the look of the wheels and engine by dabbing on the dry powder and brushing it in with an old paintbrush.

MODELSPEC

Eduard 1:48 Albatros D.II.	Kit No. 8082

Accessories and Tools Used:

Larger diameter wheels from a Roden Fokker DVII
Tamiya Masking Tape
Xacto #11 blade
Number 80 drill bit
Invisible Mending Thread (nylon monofilament)
Super glue

Paints and Finishing Products Used:

Tamiya Acrylics – XF-1 Flat Black; XF-2 Flat White; XF-23 Light Blue; XF-57 Buff (and others).
Tamiya Lacquer Grey Spray Primer
Vallejo Acrylics - Various
Winsor & Newtown Oil Paints - Burnt Sienna, Raw Umber
Future Floor Polish
Brown Pastel Chalk
Permanent Black Felt Marker

+ Nice detail; good fit; photo-etched parts

− It would be nice if Eduard updated the moulds to correct the shape of the nose and the size of the wheels.

Rating: 8 out of 10

Eduard kits are available in the UK from Creative Models Limited www.creativemodels.co.uk

Blue, XF-2 White, and a touch of XF-57 Buff. I will typically add a measure of XF-57 Buff to any paint mixture to give some weathering and scale-effect to the colour.

Metal surfaces like the struts, engine cowling and access panel detail were supposed to be painted "Grey". If wartime photos are anything to go by, these items looked like a light grey, but it's hard to say if that grey contained a hint of green, judging by the restored museum examples of DV's. I painted these components a medium light grey using a mix of Tamiya acrylics (which ended up slightly darker than the primer colour).

The upper wing surfaces sported red-brown, light green and dark green camouflage bands. Colour information references on this were difficult to nail down, and so a reasonable estimation of the colours was mixed up using various Tamiya acrylics based on interpreting the colours from Osprey, Squadron/Signal and Windsock publications on the Albatros fighter, along with Eduard's instruction guide. The colours were airbrushed onto the wings freehand, thinning the paint enough so that the demarcation lines could be fairly tight, and only slightly feathered.

Details such as the exhaust pipe and radiators and coolant tank were airbrushed black-grey, and then drybrushed with silver enamel mixed with a touch of raw umber oil paint. The exhaust received a further treatment of brown pastel chalk, which added a burnished metal/rusty look.

DECALS

After all of the painting had been completed and sealed with Future floor finish, the waterslide decals for Hauptmann Esebeck's aircraft from the Eduard kit were added. Solvaset decal solution was added to the film to help it settle over any surface detail, and the kit transfers responded well. To protect the decals from the next stages of handling and assembly, a couple of thin coats of Future floor finish were added. Earlier war markings of the Albatros were the more flamboyant national cross painted on a large white background.

RIGGING

The invisible thread used to rig the model was made visible by running a permanent black felt marker along the length. After the wing assembly had been completed securing the ends of the modified struts with super glue, the thread was placed through the previously drilled holes and anchored into counter-sunk depressions in the upper wing. When this had thoroughly dried, each thread was pulled taught through a hole in the lower wing, adding plenty of super glue to make a strong bond and seal the hole. To hold the thread in position, copper soldering clips were used as weights, allowing enough tension to keep the thread straight. When dry, the excess thread was sliced off at the wing and any unsightly marks were touched up with Vallejo acrylic paint.

WEATHERING

The decals tend to be a bit vivid on this model, and so they were "scaled down" with a touch of oil paint blended from grey and brown colours. Oils tend to disperse on the surface and leave a subtle trace of colour that was worked in with a wide, dry brush. The rib detail on the top wing was also enhanced using this technique.

The undersides of the model received some dirt streaking from earth-coloured pastel chalks. Thinned oil paint was also streaked back on the underside of the engine cowling to simulate oil and other fluid leaks.

A wash of black/raw umber oil paint was added to most of the models components at some point, toning down any harsh appearance of the bare paint finish. Pastel chalks also enhanced the look of the wheels and engine by dabbing on the dry powder and brushing it in with an old paintbrush.

Small dots of dark grey paint were painted on to simulate dirt and scratches on the metal surfaces.

CONCLUSION

The Eduard kit builds into a nice replica of the Albatros D.II. Although some welcome additions like optional radiators and photo-etched Spandau cooling jackets are present, the model could use a bit of updating because of the shape of the nose and wheel size. It would be nice to see in the future that wing and landing gear struts of true-scaled thickness could be made available, resulting in a more realistic kit in this scale. •

A YANKEE IN MEDITERRANEAN COLOURS

The Editor examines a new 1:48 scale multimedia kit of this attractive Italian fighter from ADV Models.

Casting is perfect and detail supremely crisp and petite.

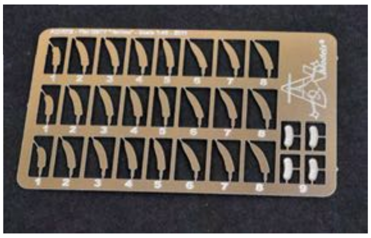
FIAT G91 Y "Yankee" 1:48 scale
32° Stormo C.B.R
8° Stormo C.B.R
806 808
32 22

ADV Models
adv.models@libero.it
Fiat G91Y - Yankee
Modello in resina con parti in metallo e decals per due esemplari
Complete resin kit with metal parts and decals for two aircraft
Edizione limitata
Limited editions
Per modellisti esperti
For experienced modellers
fiat
G91Y
Yankee
ADV0002
Scala 1/48

Markings are supplied for two aircraft.

Cockpit, wheel well and exhaust parts.

Cockpit, wheel well and exhaust parts.



The photo-etched fret offers the leading edge slat actuators and mirrors.

Vacform canopy parts, including a spare.

The Fiat G.91Y "Yankee" was a two-engine development of the highly successful Fiat G-91 Gina family.

In 1953, the single-engine Fiat G.91 win the NATO competition for a standard European Lightweight Strike Fighter aircraft. It subsequently entered service with the Italian, West German and Portuguese air forces.

In 1966, Aeritalia designed a much-improved version of the Fiat G.91. The new version featured two General Electric J85 engines, upgraded avionics and leading edge slats. This improved version was the Fiat G.91Y, nicknamed "Yankee".

Export sales were unsuccessful despite enhancement to speed, range, manoeuvrability and payload. 67 Fiat G.91Ys were produced, all of which saw service with the Italian Air Force.

Although both ESCI (later reboxed by Italeri) and Ocidental have produced 1:48 scale models of the single-engine Fiat G.91 Gina, we have not seen a G.91Y Yankee in 1:48 scale until now.

This is ADV Models' first full aircraft model kit, and it is a very impressive offering.

ADV Models' 1:48 scale Fiat G.91Y Yankee comprises 79 parts in grey resin, 11 parts in metal (cast brass and metal tube), a photo-etched fret, four vacform parts and markings for two aircraft. The impression is good even before viewing the parts. The contents are packed inside a stout cardboard box, while the wings and fuselage halves are couched in separate bubblewrap bags.

The resin parts are simply outstanding. Casting is flawless and surface detail is some of the best that I have seen in any media. Panel lines are crisp and very fine, with vents, scoops and raised detail wherever appropriate. I have test-fitted the fuselage halves and they seem to line up very well on my sample, with no gaps or steps. They are almost ready to go straight from the box too, with no casting blocks or strips.

The wings look equally good. They feature separate flaps and leading edge slats. The wings are also cast with locating tabs for the fuselage join, which will make that critical job easier and also will result in a solid bond. The wings are cast onto a large single strip.

Cockpit detail is rendered entirely in resin. The raised switches and bezels look great and should respond well to careful painting. The ejection seat has the harness straps cast in place.

The wheel wells and air brake bays also feature a good level of raised detail. ADV supplies alternate parts for open and closed main gear doors. The closed version is a single part that covers the whole main undercarriage bay – a nice touch.

The undercarriage legs are cast in high quality brass.

Four wing pylons and two drop tanks are supplied but no weapons are included.

The exhausts include a length of tube, so there is some depth in this area.

The canopy is vacform with separate parts for the windscreen and the main bubble. Two sets of the parts are supplied in case of slip-ups. The vacform parts are very clear and free from distortion. A separate resin frame is provided for the main canopy section.

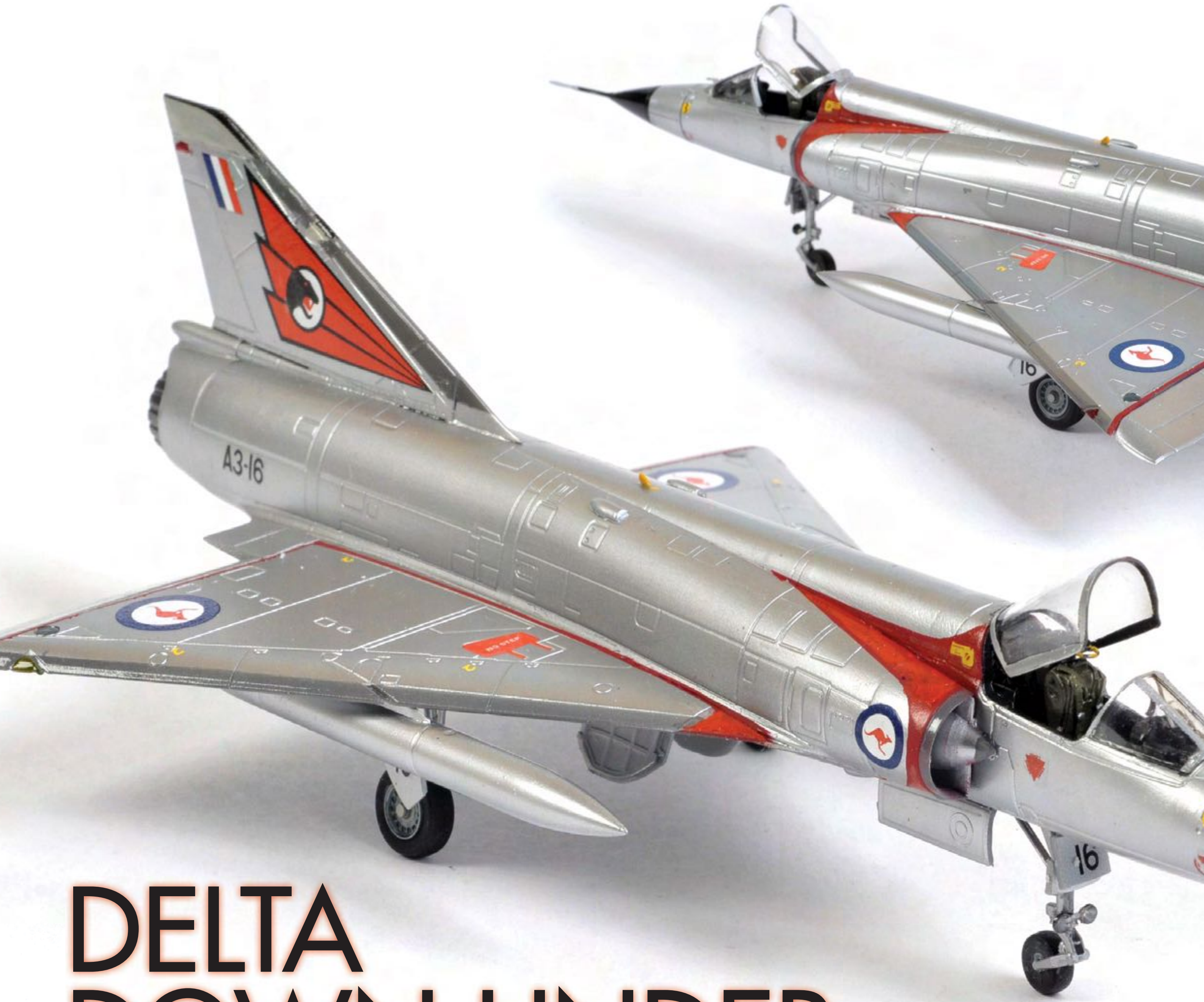
Markings are supplied for two Yankees – one with a shark's mouth and one with a red lightning bolt on the nose. Both are in standard Italian camouflage of the day – Dark Green and Dark Gull Grey over Aluminium. The decals appear to be very thin and are in register. The printer is not mentioned.

ADV Models' 1:48 scale Fiat G.91Y is a stunning kit. From the appearance of the parts in the box, ADV goes straight to the top of the resin aircraft model manufacturer's class in a similar category to Fisher Models. Casting is flawless; surface features are outstanding and detail is excellent.

Test fitting is encouraging too, but the ultimate proof will be in the building. The multimedia nature of the kit, and in particular some fiddly construction sequences including the leading edge slat actuators, means that the kit will be best suited to modellers with some experience working with resin and photo-etch, but I can't see any particular danger signs so far.

Highly Recommended. •

Thanks to ADV Models for the sample.
For information and purchase, please email models@libero.it



DELTA DOWN UNDER

Mick Evans builds, and Glen Porter examines in-the-box, the brand new 1:72 scale High Planes Models Dassault Mirage IIIO.

High Planes Models Reborn

By Glen Porter

High Planes Models was Australia's only indigenous plastic aircraft kit manufacturer. They specialised in short-run aircraft models that were quite hard to build but their range included the only accurate RAAF Mirage IIIO in plastic.

The business was recently sold and moved to Singapore where, in conjunction with PJ Products from Belgium (another 1:72 scale Mirage kit maker but in resin), they have had designed and produced their first long-run injection moulded aircraft kit.

HPM'S 1:72 MIRAGE IIIO IN THE BOX

In my opinion, the Dassault Mirage III is the most attractive aircraft ever built – a French beauty indeed. It will therefore come as no surprise to find that I have been hanging out for the last year waiting for this kit. Has it been worth it? Oh yes!

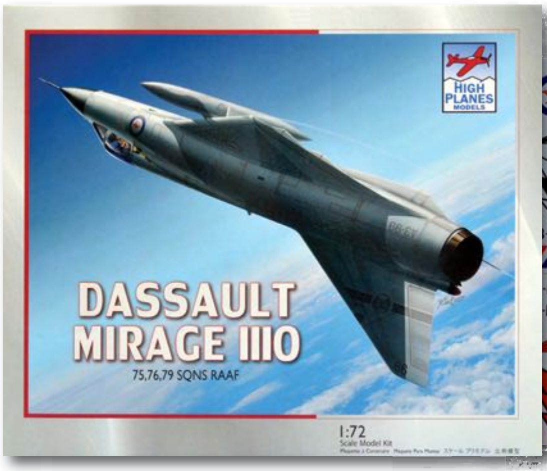
There will be three versions initially - an Aussie IIIO, Argentine Dagger and Israeli Nesher - all based on the same plastic but with different decals and box art. These are also to be sold under the PJ Products label but with resin seat, fin and tanks. There will be future kits also based on these sprues. A Mirage IIID two-seater and 1:48 scale kits are also currently in development.

The top opening box is quite big and the artwork in my opinion is not ideal, as the aircraft is inverted so that its attractive colour scheme cannot be properly seen. The size of the box is needed because the "A" sprue just squeezes in. This sprue has the ten main fuselage parts, fin/rudder, gear doors, legs and wheels, tail pipe, centre line drop tank, hard point racks and missile rails plus ten parts that are not for use in this kit.

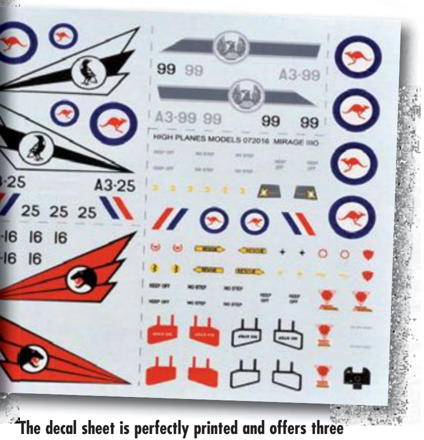
"B" has the upper and lower wings, long range and supersonic tanks and again eight parts not for use in this kit.

Sprue "C" includes the five piece seat, combined cockpit tub and front wheel well, control column,

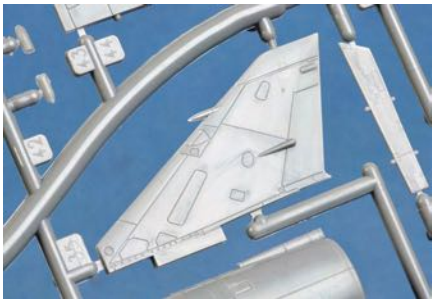
The completed model captures the smooth attractive lines of the Mirage IIIO very well.



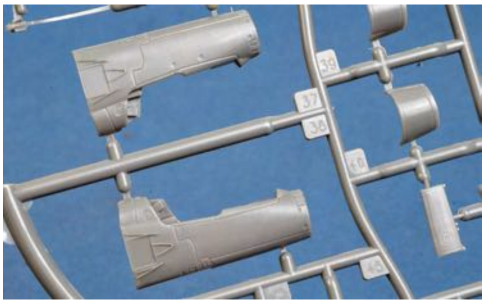
High Planes Models' box art shows an inverted grey Mirage.



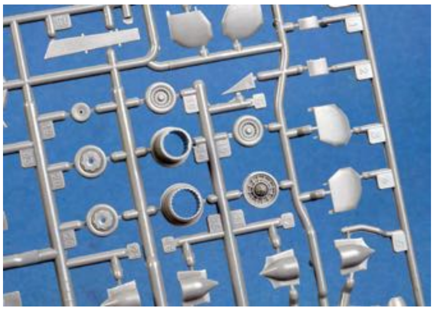
The decal sheet is perfectly printed and offers three interesting RAAF Mirage schemes.



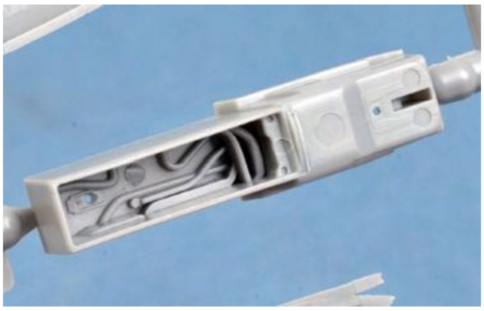
Panel lines are fairly wide and heavy.



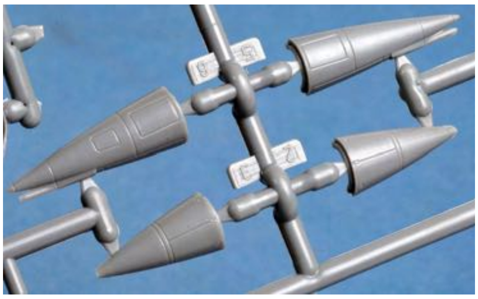
The separate nose will permit tooling of different variants.



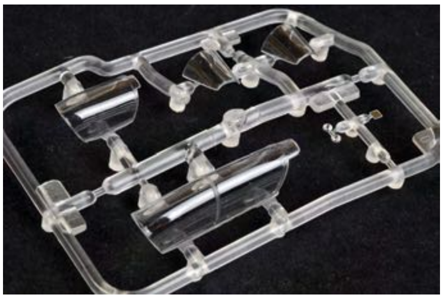
Smaller details are really well done.



The front wheel well incorporates deeply moulded plumbing detail.



The nose cone for the two-seater IIID variant is already included on the sprues.



The two-seater canopy is there too. The clear parts are very thin and completely free from distortion.

instrument panel, tail cone, nose cone and probe. Again, there are 14 parts not for use in this kit.

There is a sprue "E" but this is a bit of a mystery as it supplies the same parts with the same numbers as on sprue "A".

The clear sprue has the separate windscreen and canopy, gunsight reflector and front undercarriage landing lights, plus the two seat canopy.

Marking options are the same three schemes as in the original short-run kit but they are new decals. The first scheme is A3-16, of 76 Squadron RAAF based at Williamtown, Australia, late 1960s in overall aluminium paint and red details. Next is A3-99 in an experimental grey scheme while with 79 Squadron at Butterworth, Malaysia, 1980s. This was a mid-grey top surface with light grey below and a dark grey triangle across the wings and fuselage top but not on the fuselage sides with an olive drab triangle within it. Lastly is another experimental grey scheme, this time on A3-25 of 75 Squadron RAAF also at Butterworth, 1981-2. It's a bit hard to explain this scheme so I'll just say its light and dark grey with the aircraft split into quarters with opposite colours left and right and top and bottom. Most attractive.

Considering the amount of parts that are not used here, it would have been handy to have a sprue layout diagram and a list of the parts not for use. I also think the instructions need a bit more detail as it is not shown how the tail pipe fits between the fuselage halves and the fitment of some other parts is a bit vague. I would have liked to see some weapons supplied but I'm just happy to have the kit for the time being.

This kit is a big improvement over the Revell and Heller 1:72 scale offerings as far as detail goes; it will be a lot easier to build than the HPM short-run kits and it is a lot cheaper than the PJ Products resin kit. A lot of modellers will not take kindly to the heavy and wide Airfix-style panel lines but considering this is their first long-run kit effort, I am most impressed.

I have bought two already and will buy more. ➤

Building the Mirage

By Mick Evans

I will highlight some aspects that can only be discovered during a build of the kit and some expert knowledge on the Mirage IIIO that I gained having worked on the Mirage IIIO and D at 77 Squadron during my RAAF service.

This new Mirage kit from High Planes Models is one of the best-engineered 1:72 scale kits that I have ever built. As Glen pointed out, High Planes Models was Australia's only indigenous plastic aircraft kit manufacturer. I built both their previous 1:72 scale Mirage IIIO and IIID kits and they were extremely accurate in detail. This accuracy has been transferred to their first full production range of Mirage kits.

CONSTRUCTION

I used almost no filler on this kit except for the upper spine joint behind the cockpit and to fill one incorrectly engraved panel.

The kit is very accurate overall except for one small panel and the generator cooling outlet, very minor issues that may be easily fixed or ignored. The incorrect panel is a small panel just behind the right hand pitch damper. The panel has been replicated from the panel moulded on the left side of the fuselage which is where from my understanding the ground support gyro (I think earth rate gyro) was quickly mounted and connected after start and was used to align the early gyro system prior to the installation of the TGP twin gyro platform system in the early days. This system was no longer used when I started working on the Mirage, so my actual description of this system may not be accurate as I only gained this knowledge from word of mouth and may be incorrect. This panel is only on the left hand side but the kit manufacturer has it replicated on the right hand side as well. This inaccuracy is easily corrected by filling with filler. This panel was where we stored the pitot, static and incident probe covers during flight.

The fuselage haves mate very nicely with no filler being required as the joins are covered by the separate spine and rocket bay fuel tank. The wing to fuselage join was almost perfect with once again no filler or sanding required. Forward fuselage to main fuselage fit was also excellent with this being the only requirement for filler and sanding. I used filler on the spine join and the forward fuselage seam joins and then some fine sanding to achieve the flush finish. The intakes required some trial fitting and minor sanding to achieve a flush fit and once again no filler or sanding after fit.

The canopy and windscreen fit was exceptional. My only concern was that the windscreen should have a marginal taper to the top, hardly noticeable in 1:72 as it would probably be less than 0.5mm.

The panel lines are a bit soft and wide and are very similar to some current Airfix kits. I am happy with them but others will not approve based on current top manufacturers.

There are some decals missing for early RAAF natural metal or silver schemes such as the yellow rescue panels behind the canopy and the only one provided is for the grey scheme only.

There are also some missing data decals and in particular the early yellow and black striped panels that cover the main ground fuel handle and gun bay fuel handles and the panels that cover the main undercarriage door handles. I managed to get these from my myriad of spare decal sheets.

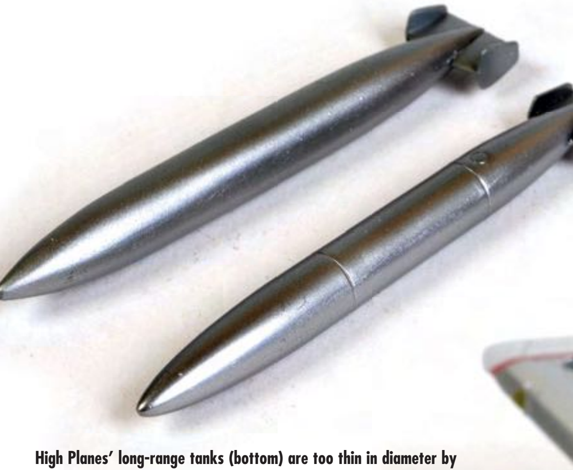
The long-range tanks are listed on the instructions as 374-gallon tanks but are only 286 gallon tanks. These are also under nourished, in other words too thin in diameter by about 1-1.5 mm when put on the Mirage plans and the stabilising fins are too close together by about 4mm. This was apparent to me even before I cut them off the sprue. If you compare these to the Hasegawa Kfir centreline tank, which is perfectly accurate for a 286 gallon tank as per the photograph here, you can see the difference.

The French 110 gallon tanks supplied can be used as Israeli tanks with fins but they need to be removed from the mounting pylon and moved rearwards about 50mm in scale. This is very noticeable even in 1:72 scale. Hasegawa did not get this right either with the Kfir 110 gallon tanks either, they are only moved about 25mm in scale to the rear.

Also, the Israeli tanks have a slight "coke bottle" shape that is only apparent when put on a flat surface and really only noticeable in full scale. The Hasegawa Kfir tanks in the photograph are over emphasised way too much.

Another major factor with this kit is the positive location for everything, including the undercarriage doors. As I stated earlier this is a kit well engineered and superb fit.

The Martin Baker Mk.6 seat provided cannot be used for the early natural metal or silver schemes as the Mk.6 was only introduced in 1981-2 so I used an Aeroclub Mk.4 seat instead.



High Planes' long-range tanks (bottom) are too thin in diameter by about 1-1.5 mm when put on the Mirage plans; and the stabilising fins are too close together by about 4mm. If you compare these to the Hasegawa Kfir centreline tank (top), which is perfectly accurate for a 286 gallon tank, you can see the difference.

The French 110 gallon tanks supplied can be used as Israeli tanks with fins but they need to be removed from the mounting pylon and moved rearwards about 50mm in scale.

PAINTING AND MARKINGS

Because this kit went together so well, and with a limited amount of filler and sanding required, I chose to do the kit in an early silver scheme; although I almost went the earlier natural metal scheme. A quick polish with steel wool and a coat of Alclad grey micro filler prepared the kit for its silver finish. I chose to use Alclad's white aluminium which, while not exactly accurate, was as close as I could find to the aluminium paint actually used. The intakes, spine and wing walk lines were masked and painted Italian red which almost matches the red used for the 76 Sqn insignia.

The decals used were for No 76 Sqn RAAF as supplied in the kit. These decals are excellent, they are in register, super thin and snuggled down into the detail without filler.

I was extremely happy with the finished result and this is the first 1:72 scale kit I have built for years, as I currently prefer 1:48 and 1:32 scales.

The kit decals performed perfectly.

Alclad White Aluminium seemed to be a good match for the shade of the real aircraft.

The intakes, spine and wing walk lines were masked and painted Humbrol enamel Italian Ferrari Red to match the decals.

CONCLUSION

In summary, the guys at High Planes have done a remarkable job on this kit for their debut mainstream, long run outing. I rate this as the best and most accurate 1:72 scale Mirage kit that I have built, and the points I have made above are very minor.

Highly recommended for all levels of modeller. •

MODELSPEC

High Planes Models 1:72 Dassault Mirage IIIO Kit No. HPK 072016

Accessories Used:

Aeroclub: Martin Baker Mk.4 Ejection Seat

Paints and Finishing Products Used:

Alclad: Grey Micro Filler; White Aluminium

Humbrol Enamels: Italian Ferrari Red

⊕ Accurate; Superbly Engineered; Easy to Build; Excellent Decals; Clear Transparencies.

⊖ Long range drop tanks inaccurate; Wide soft panel lines; Only a Mk.6 seat is provided.

High Planes Models are available online from their website www.hpmhobbies.com

Rating: 8.5 out of 10

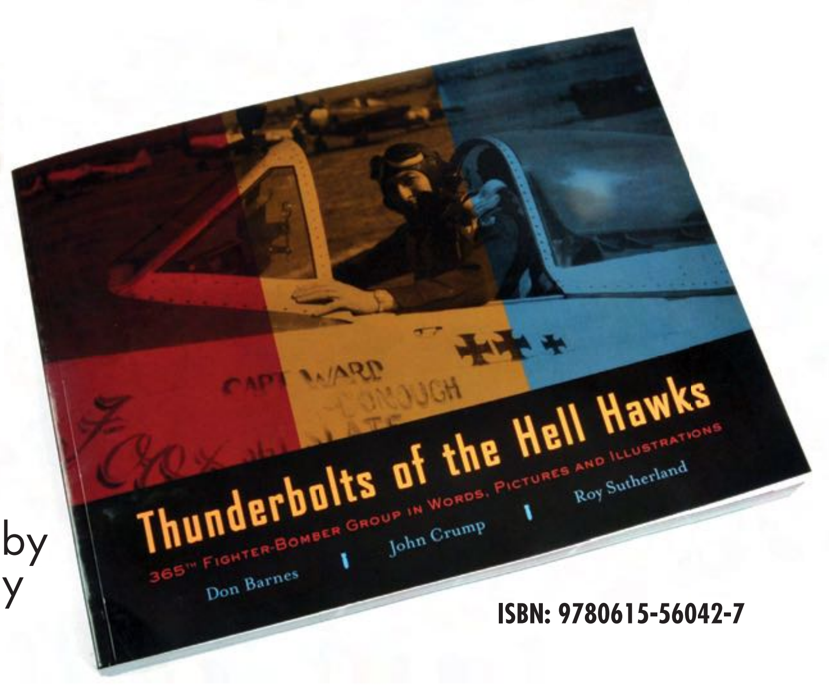
> *"I rate this as the best and most accurate 1:72 scale Mirage kit that I have built."*

This is an excellent kit – accurate and well detailed.

The model also fits together perfectly.

Thunderbolts of the Hell Hawks

365th Fighter-Bomber Group in Words, Pictures and Illustrations by Don Barnes, John Crump and Roy Sutherland - BarracudaGraphs


Thunderbolts of the Hell Hawks
365th Fighter-Bomber Group in Words, Pictures and Illustrations
Don Barnes
John Crump
Roy Sutherland

ISBN: 9780615-56042-7

MEDIA AND CONTENTS:
316 pages; 8.5" by 11" in landscape format; soft covers. Also available in hard cover and autographed editions.

"Thunderbolts of the Hell Hawks - 365th Fighter-Bomber Group in Words, Pictures and Illustrations" tells the story of this crucial P-47D unit and their operations over Europe from before D-Day until the end of the war.

There can be no doubting the importance of the U.S. Ninth Air Force in the liberation of Europe and specifically the crippling of German transport and military infrastructure in Northern Europe, but its essential role has been traditionally under-represented in print and other media.

This new book helps redress that shortcoming for this fighter-bomber unit of the Ninth Air Force.

"Thunderbolts of the Hell Hawks - 365th Fighter-Bomber Group in Words, Pictures and Illustrations" is presented over 316 pages between soft covers in 8.5" by 11" landscape format. The soft cover version is being reviewed here, but it is also available in hard bound and autographed editions.

Following a brief summary of its formation, the body text is an almost daily chronicle of the operations of the 365th FG in accessible and engaging language.

The images are a real treasure trove. More than 550 mainly wartime photos are included between the covers. Most of these have never been published before, and there are some real beauties. Those that have been reproduced to full page size are particularly impressive. Some of the photos are a bit small, but this compromise is understandable considering the breathtaking scope and sheer volume of images that the authors have managed to source.

62 pages near the back of the book are dedicated to colour profiles by Don Barnes. These are large, attractive and detailed. 98 profiles are included, some with scrap views of nose art or starboard side profiles where the details differed. Each profile is accompanied by a description of the aircraft, with some including a more detailed account of operations. The profile section would be worthy of a standalone book by itself.

A lot of thought has gone into design and layout. From the front cover and contents spread, with their Red, Yellow and Blue 365th FG colour theme, the pages ooze style. The fonts, the choice of location for the photos, the colour text bars and boxes all make for a visual feast and very attractive couching for the text and images.

Most spreads feature at least one quote at the top of the page to grab your attention. Hundreds of sidebars and information boxes provide supplementary information to the body text too. Many of these are the personal stories of pilots and crew. I like the way that large photos of museum pieces - uniform items and parts from the P-47 - have been scattered through the pages too. Maps and other relevant illustrations are also used to help tell the story.

Specifically, that story is logically laid out over the following Chapters:

- Foreword
- Introduction
- The Ninth Air Force
- The Group and Missions
- The Making of the Hell Hawks and Fighter-Bomber Tactics
- Invasion of Europe and Move Into France
- Mobility to Mud With the US 1st Army
- Belgium, Ardennes and the Battle of the Bulge
- Shutting Down the German Supply Lines and Counter Attacks
- Encirclement and Final Days
- A Long Ride Home
- The Pilots and Ships
- The Records and Reflections
- Bibliography

CONCLUSION
Book reviews will sometimes categorise a title as either best suited to the armchair historian or as a good reference for modellers.

"Thunderbolts of the Hell Hawks" has managed the tricky balancing act of catering to both groups without compromise.

The chronological history and the wealth of information in the personal stories are well balanced with the large number of well-captioned wartime reference photos and the artwork, ensuring ample detail for the history fan and inspiration for the modeller.

Looking at all those lovely colour profiles, I can't help thinking it won't be long before someone will be releasing a whole stack of decals for previously uncovered subjects too!

If you have the slightest interest in the Thunderbolt as a modelling subject, or the operational history of the P-47D Thunderbolt, this book is for you.

Available online from Barracuda Studios www.barracudacals.com or from www.adhbooks.com

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The books have been helping modellers to add essential details, find markings and apply paint schemes to aircraft, armour and ship models for many years, and the great news is that Squadron Signal books are now easier to find than ever before, because ADH Publishing, the company that brings you Model Airplane International each month, is importing them from the USA.

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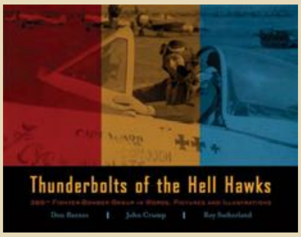
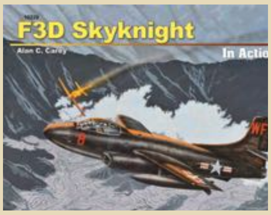
ADH025 - Thunderbolts of the Hell Hawks



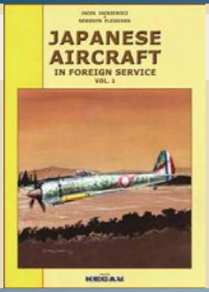
Thunderbolts of the Hell Hawks - 365th Fighter-Bomber Group in Words, Pictures and Illustrations - Softbound. By Don Barnes, John Crump & Roy Sutherland. Offering a personal view of one of the most decorated and effective P-47 units in the Ninth Air Force. This rich visual account of the 365th Fighter-Bomber Group, the "Hell Hawks", is presented in 320 pages with over 500 photos, most published for the first time. The book also features 98 thoroughly researched and detailed color profiles of their Thunderbolts, illustrated by Don Barnes. All but three of the aircraft profiled have languished in obscurity for the past 65 years, brought to light for the first time here. Published with full cooperation of the 365th FG Association, and with the kind help of the men and families who shared memories and personal photo albums, this book is a testament to their strength, courage and sacrifice helping bring an end to the war in Europe. 320 pages.

SS10229 - F3D Skyknight in Action (Soft Cover)
SS50229 - F3D Skyknight in Action (Hard Cover)



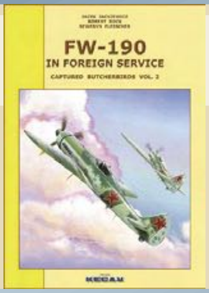
The U.S. Navy's first all-weather jet fighter, the Douglas F3D Skyknight, traces its origins to 1945, when the Navy began studies for a jet-powered, carrier-based night fighter. Ready for service when war broke out in Korea in 1950, the Skyknight, also known as Willy the Whale, proved its worth in the capable hands of pilots and radar operators with Marine Night Fighter Squadron VMF(N)-513. The F3D scored the highest number of aerial victories for an all-weather jet fighter in that conflict. Later, in the late 1950s and 1960s, Douglas Aircraft, in conjunction with the Navy and Marine Corps, modified a number of the Skyknights to perform a variety of tasks. This book chronicles the development and operational history of the Navy fighter from conception to duty in the Korean War, to service as a night interceptor in Vietnam, where it was an ECM/ELINT platform, jamming North Vietnamese missile and anti-aircraft sites. The volume is packed with never before published color and b/w photographs covering the entire operational life of the F3D-1/2, F3D-2B, F3D-1/2M, F3D-2T2, and the EF-10B variants. Illustrated with more than 10 line drawings and 196 photographs. 80 pages.

ADH024
Japanese Aircraft in Foreign Service



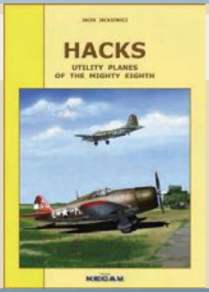
J.Jackiewicz & S.Fleischer
English text, soft cover, 128 pages, over 300 photos, 187 side profiles and color plates.
Entire book is published in colour.

ADH023
FW-190 In Foreign Service (Captured Butcherbirds Vol. 2)



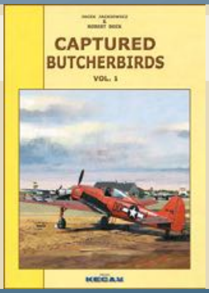
J.Jackiewicz, S.Fleischer, R.Bock
English text, soft cover, 100 pages, 215 photos, 112 side profiles. Entire book is published in colour.

ADH022
Hacks Utility Planes of the Mighty Eighth



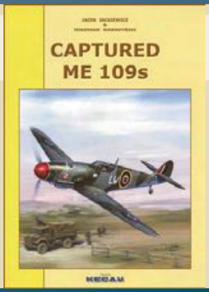
J. Jackiewicz
Continuation and sequel for the 'Assembly Ships'.
English text, soft cover, 132 pages, 267 photos, 195 colour profiles. Entire book is published in colour.

ADH021
Captured Butcherbirds Vol.1



J.Jackiewicz & R.Bock
English text, soft cover, 128 pages, 329 photos, 28 multi-views painting schemes and 127 side profiles.
Entire book is published in colour

ADH020
Captured ME 109's



J.Jackiewicz & M.Wawrzyński
English text, soft cover,180 pages, 399 photos 151 side profiles and 32 three or four views painting schemes.
Entire book is published in colour.

Shown here is a selection of some of the most popular titles, many more available

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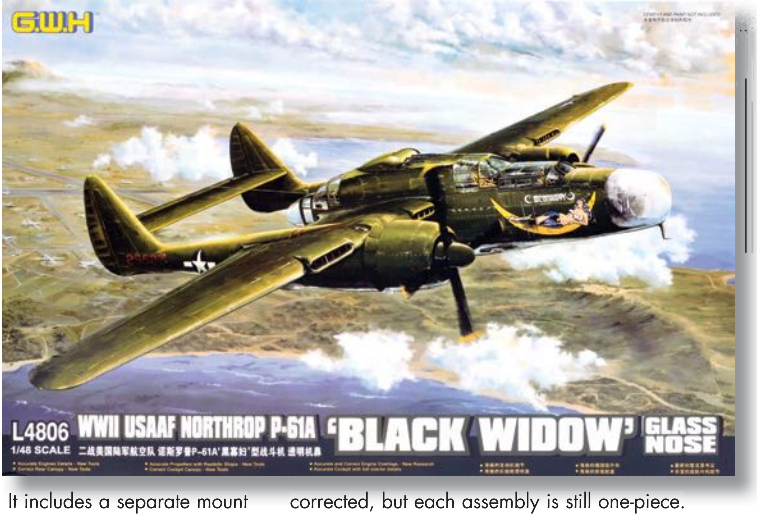
GLASS NOSE WIDOW

Great Wall Hobby, now going under the brand name G.W.H, has retooled some important elements of their original 1:48 scale P-61A for this new "Glass Nose" version of the Black Widow.


G.W.H
L4806
1/48 SCALE
WWII USAAF NORTHROP P-61A 'BLACK WIDOW' GLASS NOSE

We modellers are quick to criticise manufacturers that make mistakes, but we should also give credit when those companies take steps to address known problems with their kits.

Great Wall Hobby released their early version of the 1:48 scale P-61A Black Widow back in August 2011. This was a very nice kit that featured crisp recessed surface features and a high level of detail.

It also had a number of shortcomings, some of which were easy to fix, and others that would require more work or aftermarket replacement. It did not take Great Wall Hobby long to announce that the next version of their Black Widow would address the bulk of these issues with re-tooled parts.

Great Wall Hobby, under its new Trademark name G.W.H, has now released its "glass nose" version of the P-61A.

Great Wall's 1:48 scale P-61A Black Widow Glass Nose comprises around 180 grey plastic parts, 12 parts in clear plastic, a photo-etched fret, a length of brass tube and two decal sheets with markings for two aircraft.

The differences between the early version released last year and the "glass nose" release are the inclusion of the 4x.50 cal. upper gun turret and a frosted Perspex nose.

The new gun turret looks well done. It includes a separate mount for the four .50 cal. machine guns, the tubular mounting structure and the remote controls for the gunner / radar operator. The new clear nose is not the same as the "review-sample only" version that was supplied last year. It is frosted, and appears to have been revised in shape and length.

However, many modellers will be more interested in the improvements to the existing parts. Let's take a look at what changes G.W.H has made.

The opening in the engine cowling has been significantly widened to a more accurate size. This makes a big difference to the appearance of the model.

G.W.H now includes cylindrical crank case housings. Magnetos are also supplied with this kit, and a photo-etched grille is provided for the vent at the bottom rear of the engine nacelle.

The shape of the propeller blades has been corrected, but each assembly is still one-piece.

Another major revision is the size and frame arrangement of the rear canopy.

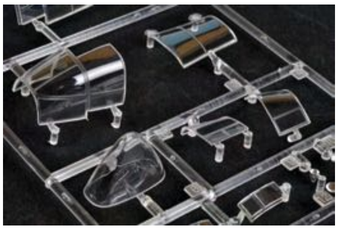
G.W.H deserves credit for taking the expensive step of retooling many of the important areas of their Black Widow kit to deliver a much-improved P-61A.

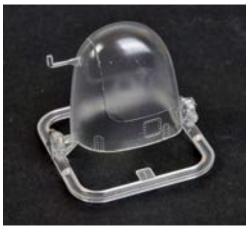
The inclusion of the upper gun turret and the frosted nose will be welcomed by modellers too.

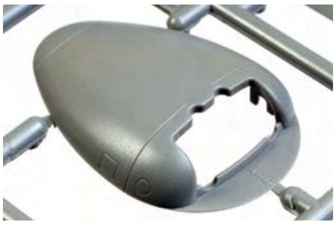
I have already built the initial Great Wall Hobby P-61A Black Widow and found that it fitted well and presented few challenges. This release should be a trouble-free build too.

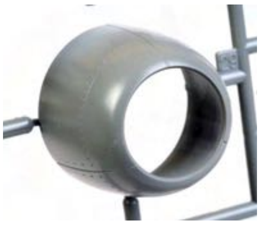
Highly Recommended. •

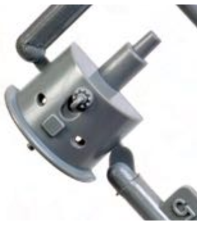
Thanks to G.W.H for the sample www.lionroar.net G.W.H kits and Lion Roar accessories are available in the UK from The Airbrush Company Limited www.airbrushes.com


The shape of the rear canopy has been corrected.


This kit comes with a revised frosted nose.


This version includes the upper turret.


The larger opening of the engine cowling is a big improvement.


Cylindrical covers and magnetos are now supplied for the engine.

EDUARD 1:48 P-61 BLACK WIDOW WHEELS

In a nice piece of good timing to coincide with G.W.H's latest kit, Eduard has released a set of 1:48 scale P-61 Black Widow wheels in their premium Brassin range.

The set comprises nine parts in perfectly cast resin plus two colour photo-etched pieces.

The wheel hubs are cast in front and back sections, and all feature beautifully crisp detail including brake lines and retaining bolts.

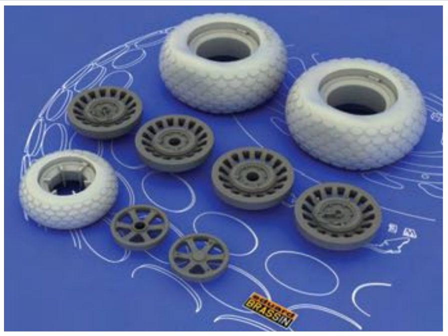
The bulged and flattened tyres have raised tread detail and the lettering "Good Year", along with the flying foot logo, on the sidewalls.

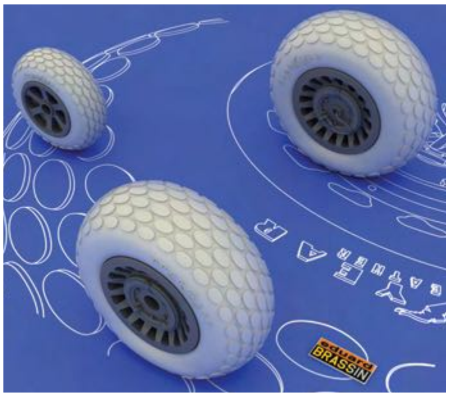
The two Neutral Grey colour photo-etched parts are optional covers for the front wheel hubs.

These are simple but beautifully detailed replacements for either G.W.H's or Revell-Monogram's Black Widow kits. They will represent a luxurious finishing touch to your project.

Highly recommended. •

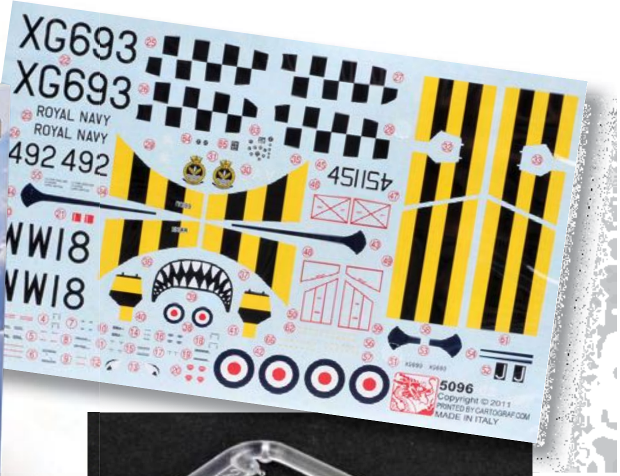
Thanks to Eduard for the sample www.eduard.cz





Sea Venom FAW.21

cyber-hobby.com
1:72 GOLDEN WINGS SERIES
Sea Venom FAW.21
5096
492



Dragon is marketing its new aircraft kits under the banner of Cyber-Hobby. I'm not sure why but if you are looking for them on the bigger internet sites such as Hannants or HobbyLink Japan, you must search under Cyber-hobby not Dragon.

Their first 1:72 scale kit, the Meteor F.3, looked very good but had some minor faults, most of which were corrected when they released the Meteor F.1.

Their next 1:72 scale kit, the night-fighter F6F, even with folding wings was considered not as good as Eduard's excellent kit. Dragon's Sea Vixen has been criticised for an out of shape nose cone and dodgy cockpit so now it is interesting to see how Dragon has gone with their Sea Venom.

Cyber-Hobby's 1:72 scale Sea Venom comprises 89 mid grey plastic parts on three sprues with very refined engraved detail plus tiny rivets on the metal surfaces, 3 very clear parts on one sprue, 2 PE bits and decals for two aircraft.

This is the first new 1:72 scale moulding of a Sea Venom since the old Frog kit from decades ago.

Some people with a lot more knowledge of this aircraft than me have pointed out most if not all of the shape problems which, although I'm aware they are there, I don't really know what they are so am unable to detail them. I still believe that it is a good, if somewhat flawed, kit.

The first thing of note is the attractive box art on the top opening box. On opening, there are three sprues, "A" has just two parts, upper and lower fuselage and inner wings while "B" has outer wings, booms and tail plane, main wheels and 9 of the 14 piece jet engine plus other small bits. "C" has the remainder of the engine bits, cockpit tub, gear doors, rudders, flaps etc. One clear sprue has three parts, a one piece canopy and two formation light lenses. There is a photo-etched fret that contains the two wing fences.

The decals, nicely printed by Cartograph, have markings for two aircraft, 492/XG693 from 894 Sqd. FAA, HMS Albion, late 1950s in Extra Dark Sea Grey uppers and white below, shark mouth and red and black checked wing tanks plus 451/WW189 of 892 Sqd FAA, HMS Ark Royal, Suez 1956 in EDSG and Sky with black and yellow campaign stripes.

Just looking at the parts, it is obvious that the front wheel well is very shallow. I don't know what Dragon was thinking when they did this. The ejection seats are also very small and the right hand side of the instrument panel has no detail at all.

Then there are the instructions. Dragon really should take a lot more care here. There are two parts (C35 and 36) on one of the sprues which are not mentioned in the instructions at all. I have no idea what they are or where they go. They give you a gun camera (part C42) but don't point out in the instructions that you have to drill a whole for it. In the painting instructions, the underside colour of one of the options is white but they tell you black. Doh!

Sure, this Sea Venom is less than perfect, but there has been so much improvement in mould quality and detail over the old Frog kit and let's face it, even with all of these faults, it is still going to look like a Sea Venom.

So don't be put off, especially if it's one of the subjects you've been waiting for, it still should be an enjoyable build.

Recommended with reservations. •

Dragon kits are distributed in the UK by The Hobby Company Limited www.hobbyco.net

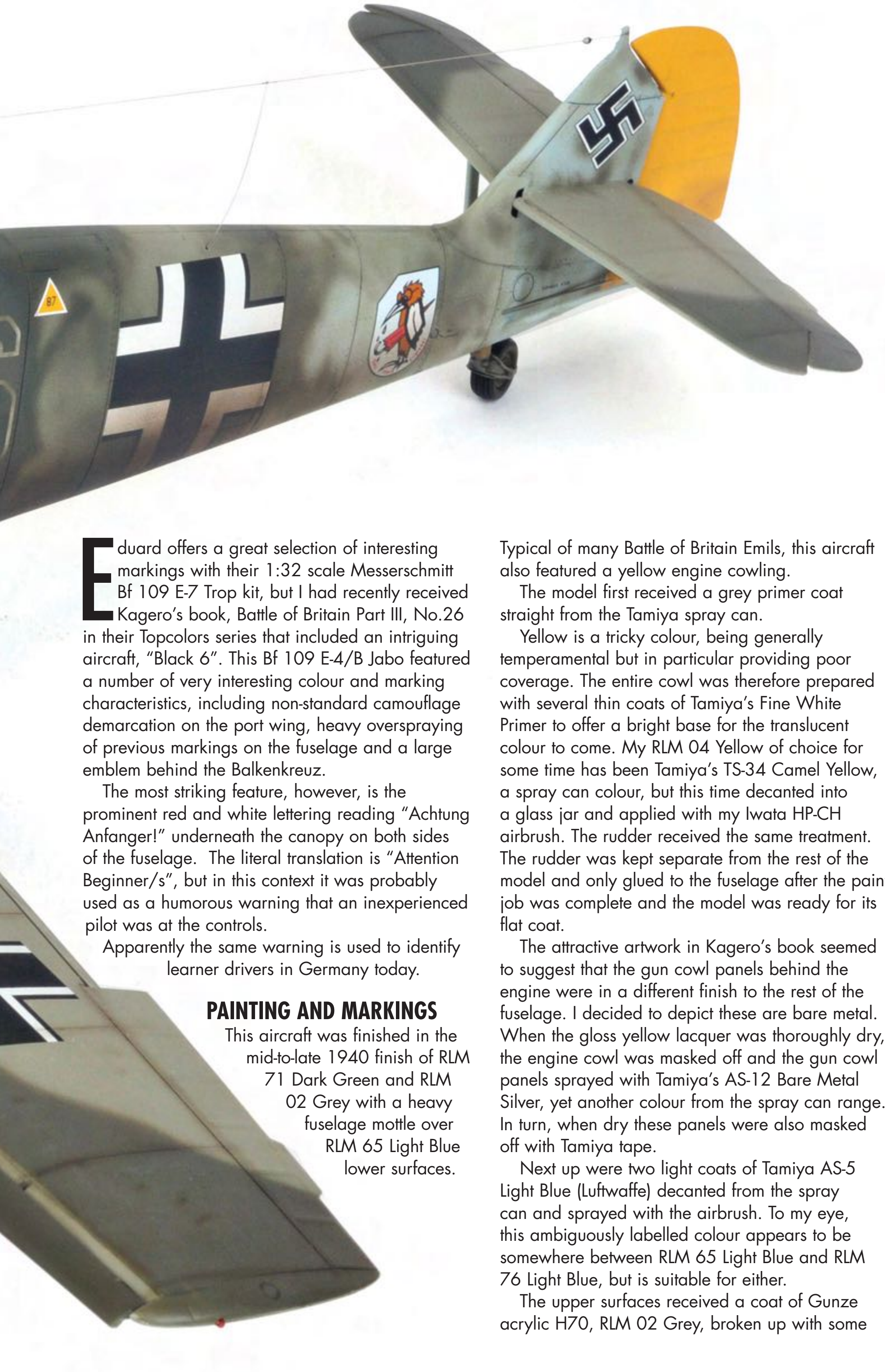
BLITZ JABO

Part Two – Painting and Markings

ACHTUNG ANFÄNGER !

> ***"The literal translation is "Attention Beginner/s", but in this context it was probably used as a humorous warning that an inexperienced pilot was at the controls."***

The Editor finishes Eduard's 1:32 scale Messerschmitt Bf 109 E-4/B fighter/bomber in a messy, non-standard camouflage scheme with plenty of overspray and exhaust staining.



Eduard offers a great selection of interesting markings with their 1:32 scale Messerschmitt Bf 109 E-7 Trop kit, but I had recently received Kagero's book, Battle of Britain Part III, No.26 in their Topcolors series that included an intriguing aircraft, "Black 6". This Bf 109 E-4/B Jabo featured a number of very interesting colour and marking characteristics, including non-standard camouflage demarcation on the port wing, heavy overspraying of previous markings on the fuselage and a large emblem behind the Balkenkreuz.

The most striking feature, however, is the prominent red and white lettering reading "Achtung Anfanger!" underneath the canopy on both sides of the fuselage. The literal translation is "Attention Beginner/s", but in this context it was probably used as a humorous warning that an inexperienced pilot was at the controls.

Apparently the same warning is used to identify learner drivers in Germany today.

PAINTING AND MARKINGS

This aircraft was finished in the mid-to-late 1940 finish of RLM 71 Dark Green and RLM 02 Grey with a heavy fuselage mottle over RLM 65 Light Blue lower surfaces. Typical of many Battle of Britain Emils, this aircraft also featured a yellow engine cowling.

The model first received a grey primer coat straight from the Tamiya spray can.

Yellow is a tricky colour, being generally temperamental but in particular providing poor coverage. The entire cowl was therefore prepared with several thin coats of Tamiya's Fine White Primer to offer a bright base for the translucent colour to come. My RLM 04 Yellow of choice for some time has been Tamiya's TS-34 Camel Yellow, a spray can colour, but this time decanted into a glass jar and applied with my Iwata HP-CH airbrush. The rudder received the same treatment. The rudder was kept separate from the rest of the model and only glued to the fuselage after the paint job was complete and the model was ready for its flat coat.

The attractive artwork in Kagero's book seemed to suggest that the gun cowl panels behind the engine were in a different finish to the rest of the fuselage. I decided to depict these are bare metal. When the gloss yellow lacquer was thoroughly dry, the engine cowl was masked off and the gun cowl panels sprayed with Tamiya's AS-12 Bare Metal Silver, yet another colour from the spray can range. In turn, when dry these panels were also masked off with Tamiya tape.

Next up were two light coats of Tamiya AS-5 Light Blue (Luftwaffe) decanted from the spray can and sprayed with the airbrush. To my eye, this ambiguously labelled colour appears to be somewhere between RLM 65 Light Blue and RLM 76 Light Blue, but is suitable for either.

The upper surfaces received a coat of Gunze acrylic H70, RLM 02 Grey, broken up with some streaks and mottles of a paler shade of the same colour. This was quickly followed by a disruptive pattern from Gunze H64 RLM 71 Dark Green. The camouflage pattern was sprayed freehand and very close to the surface of the plastic at around 20 PSI pressure to achieve a fairly tight demarcation between the colours. The non-standard camouflage pattern on the port side upper wing was based on an illustration in the Kagero book.

The fuselage mottling was built up gradually in layers, starting with the Gunze H70 RLM 02, followed by Gunze H64 RLM 71 Dark Green, and finally Gunze H65 RLM 70 Dark Green in large patches on either side of the fuselage.

The rudder was glued to the fin at this stage.

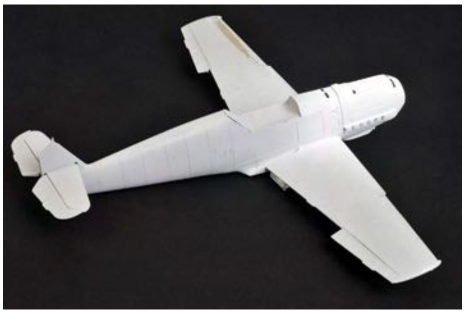
With the basic camouflage complete, Future floor polish was sprayed over the entire model. This tough topcoat serves the dual purposes of preventing damage to the soft Gunze paint, and providing a useful glossy surface for the application of decals.

Kagero's Cartograf-printed decals are very thin and demand careful handling, but they performed beautifully over the glossy coat of Future floor polish.

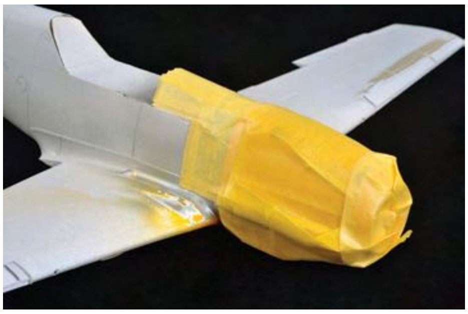
The artwork indicates that the big Black 6 was stained or oversprayed with a dark colour. I sprayed a very thin mix of Gunze H65 RLM 70 Dark Green over the digits until the result was close to that of the artwork. The bottom of the numbers seemed more obscured than the top, most likely due to heavy exhaust staining, so I tried to replicate this uneven coverage.

The entire model was now dulled down with several coats of Testor's Model Master Flat Clear Lacquer Finish.

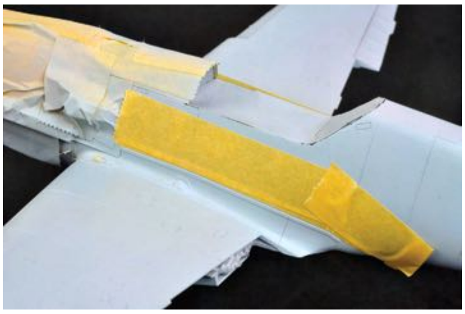
➤



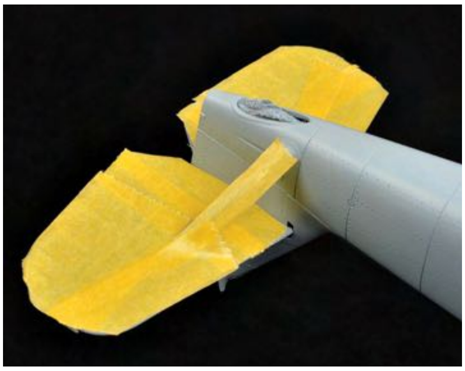
The model received a coat of Tamiya's Grey Primer straight from the can. The engine cowl was prepared with white primer.



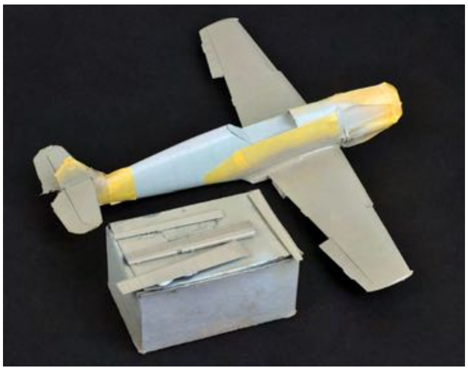
After the engine coal was painted yellow and the gun cowl sprayed silver, the nose of the aircraft was masked off in preparation for the camouflage colours.



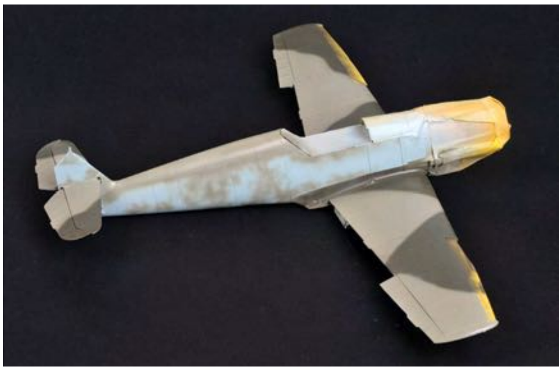
With Tamiya's AS-5 Light Blue (Luftwaffe) coat in place, it was time for more masking. Here, the wing root has been masked off before the upper wings are sprayed.



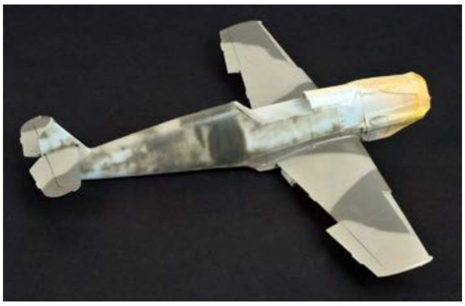
The bottom of the horizontal stabilisers and the support struts have been masked off with Tamiya tape too.



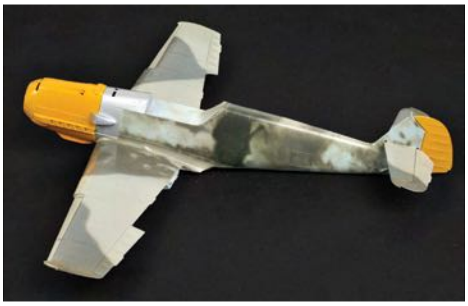
The tops of the wings and tailplanes were sprayed with Gunze acrylic H70 RLM 02 Grey. The tops of the flaps and leading edge slats were sprayed at the same time.



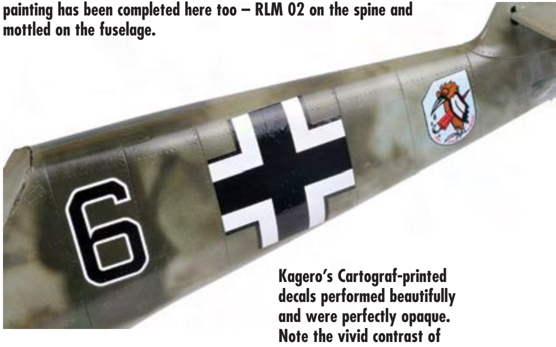
The non-standard upper surface pattern was applied freehand with Gunze acrylic H64 RLM 71 Dark Green. The first stage of the fuselage painting has been completed here too – RLM 02 on the spine and mottled on the fuselage.



Initial mottling is now complete with RLM 70 and 71 in place. Observation and patience are the keys to a good mottle finish.

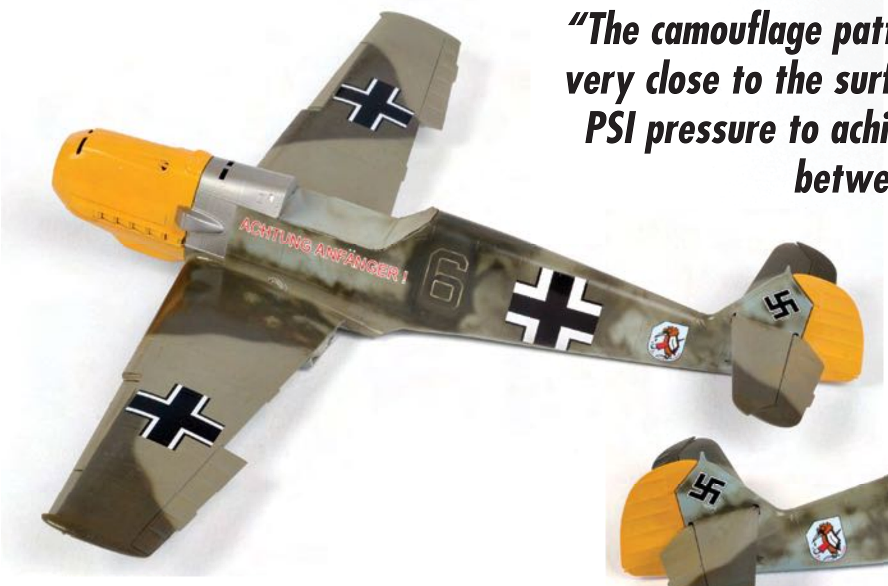


The patches and squiggles of RLM 70 Black Green make a big impression on the fuselage. The yellow rudder was glued to the fuselage at this stage.

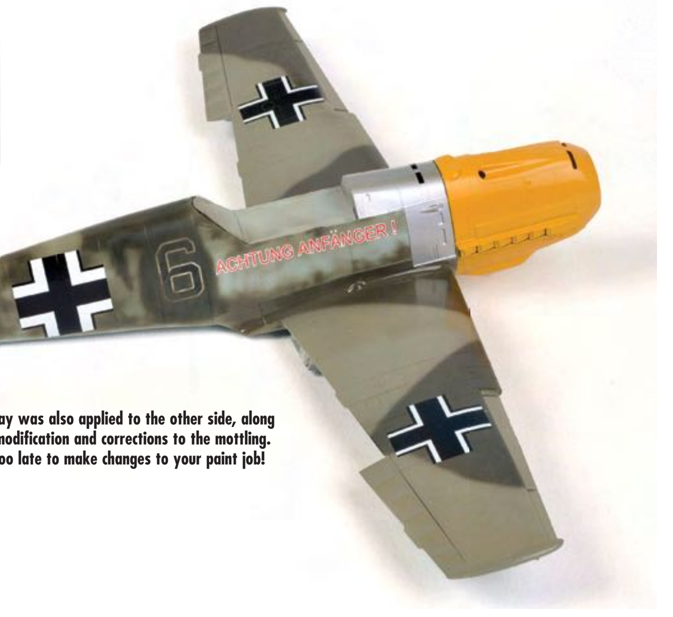


Kagero's Cartograf-printed decals performed beautifully and were perfectly opaque. Note the vivid contrast of the black and white "6" digit. We'll fix that soon!

> ***"The camouflage pattern was sprayed freehand and very close to the surface of the plastic at around 20 PSI pressure to achieve a fairly tight demarcation between the colours."***



The bright white of the "6" digit was tamed with several very thin and selective coats of Gunze H65 RLM 70 Black Green.



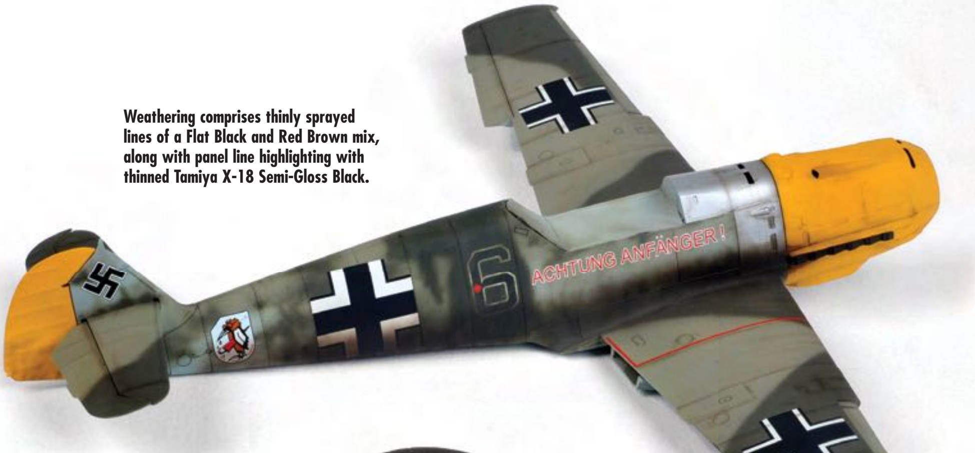
The overspray was also applied to the other side, along with some modification and corrections to the mottling. It is never too late to make changes to your paint job!

The freehand camouflage demarcation is fairly tight, but has a slightly soft edge.

Testor's Flat Clear lacquer dulls down the previous glossy Future finish. The "Achtung Anfanger!" lettering is very striking.

The dark exhaust stain further obscures the bottom of the "6" digit.

Eduard supplied die-cut self-adhesive masks for their canopy and wheel parts.



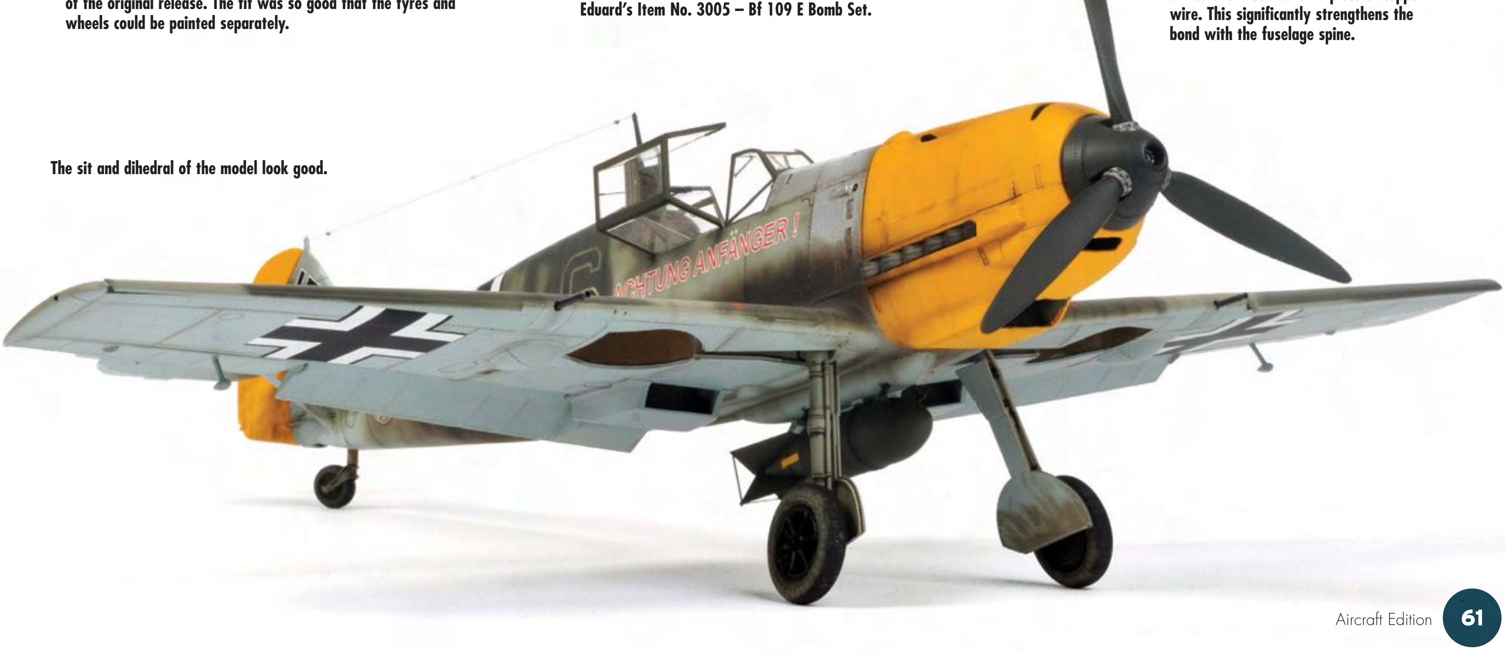
Weathering comprises thinly sprayed lines of a Flat Black and Red Brown mix, along with panel line highlighting with thinned Tamiya X-18 Semi-Gloss Black.

The inside of the canopy parts were blanked off with Tamiya tape before temporarily mounting them on the end of a pencil with Blu-Tack. I find that this greatly simplifies handling and spraying the canopy parts.

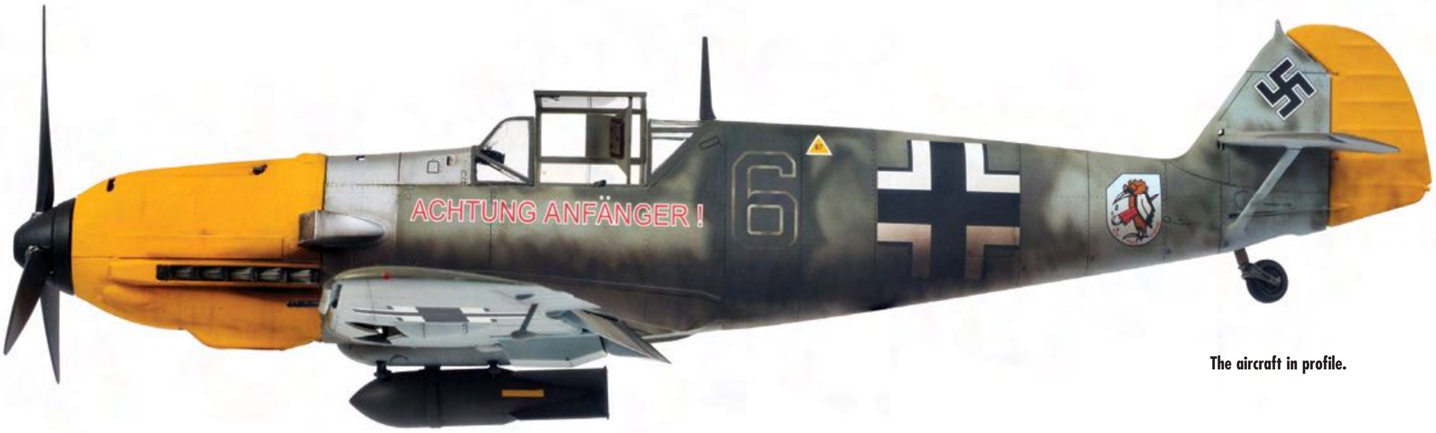
The wheels included in this kit are a big improvement over those of the original release. The fit was so good that the tyres and wheels could be painted separately.

The bomb and the ETC rack were sourced from Eduard's Item No. 3005 – Bf 109 E Bomb Set.

The base of the antenna post was drilled and mounted on a piece of copper wire. This significantly strengthens the bond with the fuselage spine.

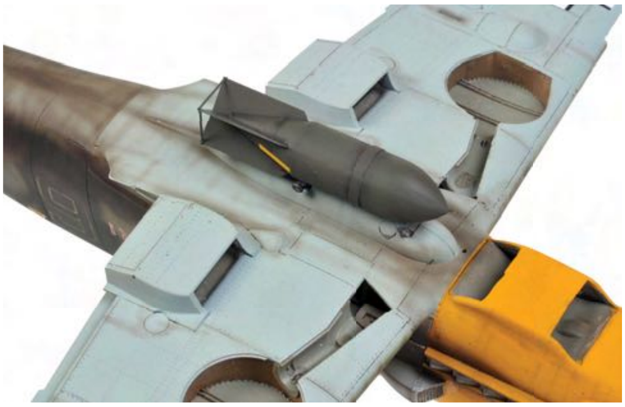


The sit and dihedral of the model look good.

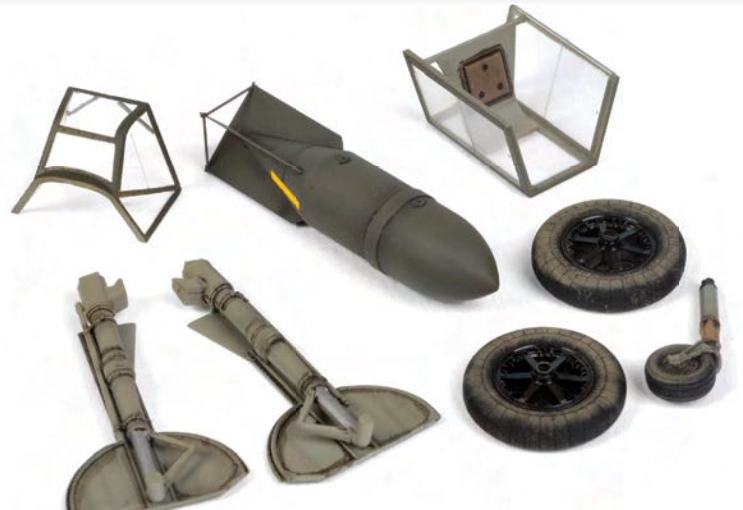


The aircraft in profile.

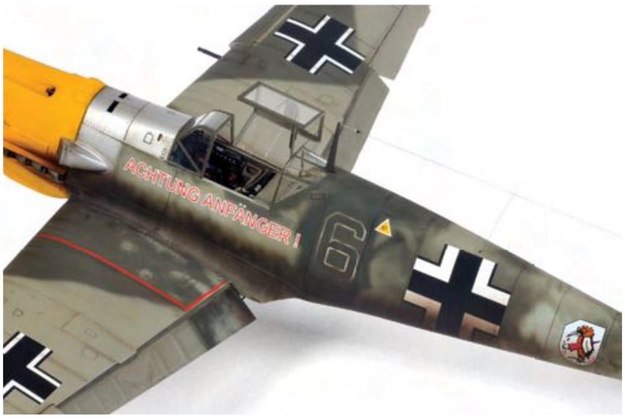
> *"It is tempting to race through the painting and weathering of the final touches, but a little extra time spent on these will have a big impact on the completed model. Remember, the devil is in the detail!"*



The bomb fitted to the bottom of the fuselage. You can see some of the heavy weathering of the lower surfaces here too.

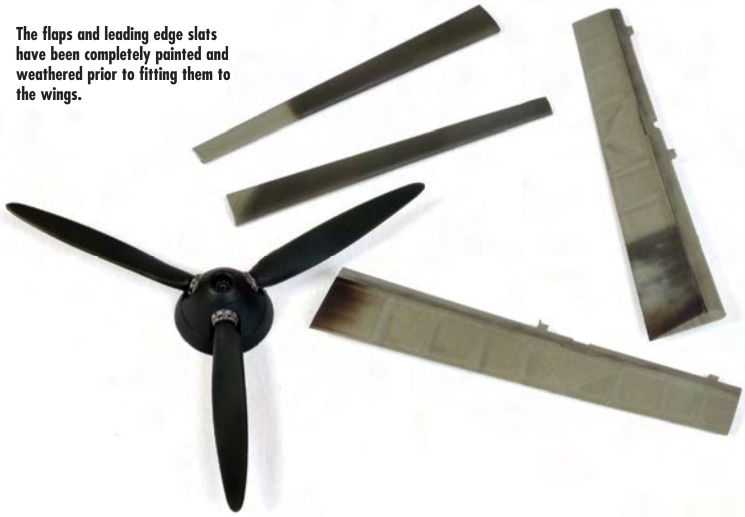


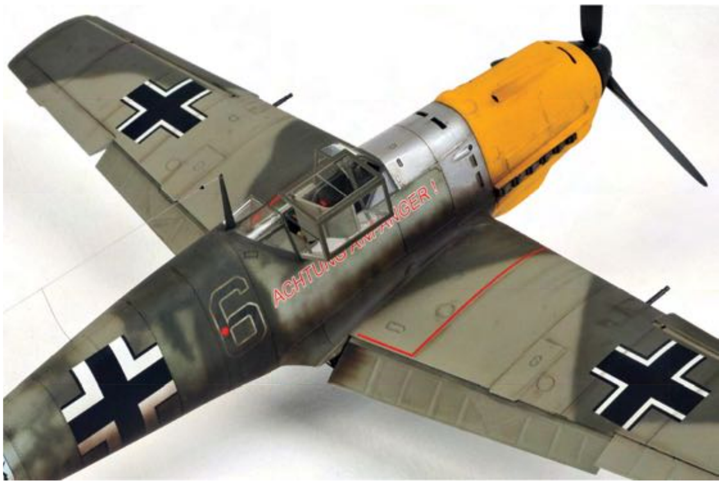
It is tempting to race through the painting and weathering of the final touches, but a little extra time spent on these will have a big impact on the completed model. Remember, the devil is in the detail!



Note the "bald spots" at the port side wing root and on the trailing edge of the flap.

The flaps and leading edge slats have been completely painted and weathered prior to fitting them to the wings.





The filthy exhaust stain was sprayed with many thin layers of a mixture of Tamiya's acrylic XF-1 Flat Black and XF-64 Red Brown.

ACHTUNG ANFÄNGER !
6

"Black 6" features a striking Battle of Britain colour scheme.

ACHTUNG ANFÄNGER !
6

This is the third Eduard 1:32 scale Messerschmitt Bf 109 E kit that I have built, and I am sure that it will not be my last.

MODELSPEC

Eduard 1:32 Messerschmitt Bf 109 E-7 Trop.	Kit No. 3004

Accessories Used:

Eduard Item No. 3005 – Bf 109 E Bomb Set

Eduard Brassin Item No. 632 004 – Bf 109 E Wheels

Aires Item No. 2104 – Messerschmitt Bf 109 E-4/E-7 Cockpit Set

Kagero Item No. 15026 – Topcolors 26 Battle of Britain Part III (Book and Decals)

Airscale Item No. AS32 SCH – WW2 Luftwaffe Cockpit Placards

Tools and Modelling Products Used:

Tamiya Extra Thin Cement

Revell Contacta Cement

Selley's Super Glue

Zip Kicker (super glue accelerator)

Tamiya Masking Tape

Dymo Tape

Irwin Clamps

Smoke-Coloured Invisible Mending Thread

Paints and Finishing Products Used:

Tamiya (acrylic): X-18 Semi-Gloss Black; X-25 Clear Green; X-27 Clear Red; XF-1 Flat Black; XF-2 Flat White; XF-3 Flat Yellow; XF-23 Light Blue; XF-64 Red Brown; XF-57 Buff.

Primer; AS-5 Light Blue Luftwaffe; AS-12 Bare Metal Silver; TS-34 Camel Yellow

Tamiya Weathering Master - Weathering Pastels Parts A.

Gunze-Sangyo acrylic paints: H64 RLM 71 Dark Green; H65 RLM 70 Black Green; H70 RLM 02 Grey; H310 Brown FS 30219.

Mr Hobby Mr Color Leveling Thinner 400.

Vallejo Model Color (acrylic): 919 Foundation White; 70953 Flat Yellow; 70957 Flat Red

Vallejo Panzer Aces (acrylic): 312 Leather Belt

Testor's Model Master Flat Clear Lacquer Finish

Gunze Mr Metal Color (lacquer): 211 Chrome Silver

Solvaset decal setting solution

Future Floor Polish

AK Interactive Dark Brown Wash

Winsor & Newton Oil Paints: Lamp Black; Raw Umber

⊕ Great detail; good fit; plenty of useful options; huge range of camouflage and marking options.

⊖ Slight bulge on spine; leading edge slats too deep (but not a difficult fix).

Rating: 8.5 out of 10

Thanks to Eduard for the sample www.eduard.com

Eduard kits are available in the UK from Creative Models Limited www.creativemodels.co.uk

FINISHING TOUCHES

Eduard's die-cut, self-adhesive masks (included with the kit) were applied to the canopy sections before they were glued into place. The masks were fast to apply and conformed perfectly to the frames of the plastic canopy. The first paint on airframe was RLM 02 Grey representing the interior canopy frame colour, followed by Gunze RLM 71 Dark Green.

The aerial mast is moulded with a small locating pin. I cut this off and drilled the base, then installed a more robust and much longer brass pin.

The two parts of each main wheel were painted separately – Tamiya XF-18 Semi-Gloss Black for the hub front and back, and a murky mix of Flat Black and Red Brown for the tyre. This was possible thanks to the excellent fit of these parts.

The main landing gear was a surprisingly precise fit considering the short depth of the locating hole.

The propeller blades and spinners were painted Gunze acrylic H65 RLM 70 Black Green before the prominent pitch collars were sprayed silver. Once dry, they received a generous wash of A.J. Interactive's Dark Wash.

The bomb was painted Gunze H64 RLM 71 Dark Green and weathered up before yellow stripe decals were applied.

The wing tip navigation lights were painted with a small spot of light grey followed by a coat of Tamiya X-25 Clear Green on the starboard side and X-27 Clear Red on the port.

WEATHERING

Weathering was carefully built up with very subtle applications of a thinned black-brown mixture along panel lines and other structural features.

This same black-brown mixture was sprayed in random spots and streaks; and as a heavy exhaust stain as shown in the Kagero artwork.

Panel lines were then treated to a thin wash of Tamiya XF-18 Semi-Gloss Black paint.

All the remaining bits and pieces were now attached to the model.

The very last task was rigging the aerial wire from invisible mending thread (nylon monofilament), and adding isolators from tiny blobs of Blu-Tack.

CONCLUSION

This is the third Eduard 1:32 scale Messerschmitt Bf 109 E kit that I have built, and I am sure that it will not be my last.

This is the first time that I have corrected the depth of the leading edge slats. It was neither a difficult nor a time consuming task, and it does make a noticeable difference to the appearance of the finished model. I would certainly do it again.

The Aires cockpit is fabulously detailed, and it works well in tandem with Eduard's own colour photo-etched cockpit parts. Once again, I would thoroughly recommend the use of the Aires resin cockpit.

One of the reasons that I am continually drawn back to the Messerschmitt Bf 109 is the staggering selection of colours and markings. Kagero's TopColors book certainly delivered a very interesting variation with "Black 6".

So what scheme and kit will I choose for my next Bf 109? •

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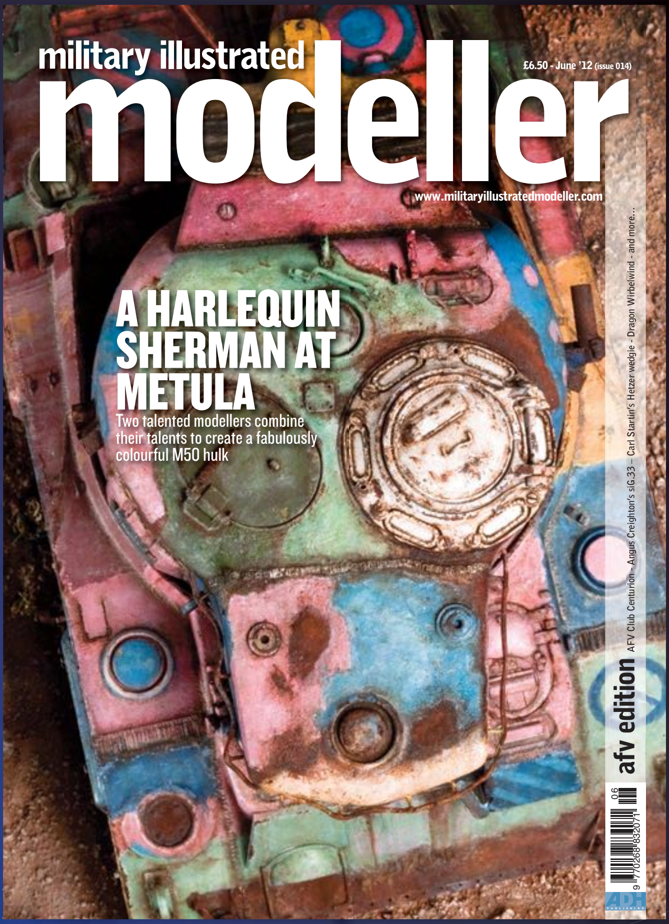
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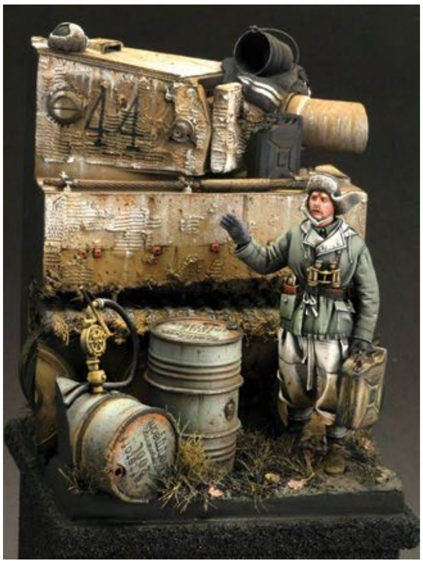
ARMORED PATROL
A Vietnam War era V-100 armoured car in 1:35



ANOTHER WEDGIE-WONDER!
Carl Startin returns to MiM, this time with his 1:35 Tiger I vignette in winter conditions

SPLINTER GROUP
Chris Jerrett brings us his Hobbyboss 1:35 Swedish Strv122 in splinter camouflage and amazing weathering

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DOUGLAS TBD-1 'DEVASTATOR'

DEVASTATING IMPACT
TMMI Editor Marcus Nicholls builds Great Wall Hobby's 1:48 scale TBD-1 Devastator.

GULL WING OVER POLAND
We ran out of space in this issue, but we will see Kamil Feliks Sztarbala's new 1:48 scale ToRo Model's PZL P.7a in Issue 17.

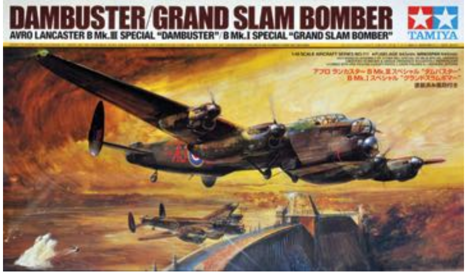
STALIN'S ARROW - PART TWO
The Editor builds and paints the second set of Tamiya's 1:48 scale Il-2 Shturmovik test shot sprues.

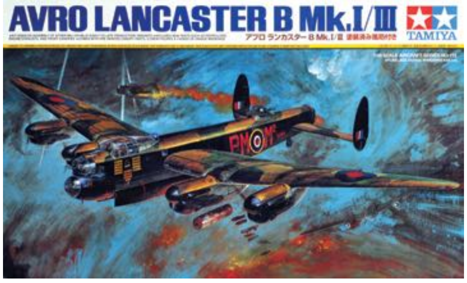
OKINAWA AVENGER
Accurate Miniatures 1/48 scale TBM-3 Avenger by Gary Edmundson

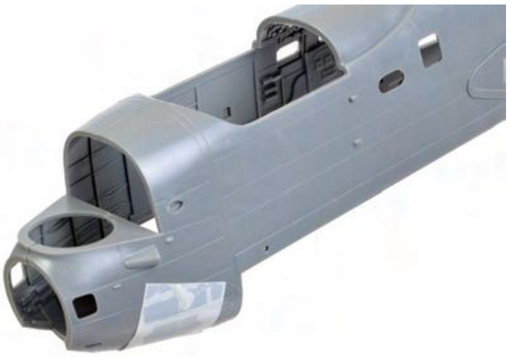
...AND MORE!

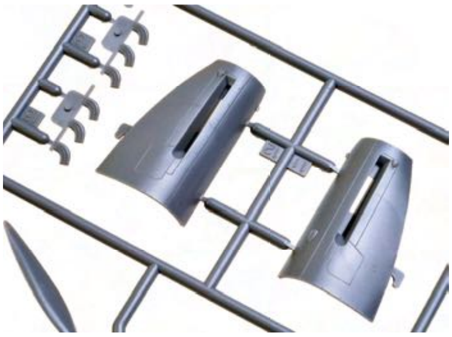
A NIGHT FLIGHT DOWN MEMORY LANE

The Editor recalls some early model purchases as he paws through Tamiya's reissued and improved 1:48 scale Lancaster B.Mk.I/III and Dambuster/ Grand Slam Bomber kits.


DAMBUSTER/GRAND SLAM BOMBER
AVRO LANCASTER B Mk.III SPECIAL "DAMBUSTER" / B Mk.I SPECIAL "GRAND SLAM BOMBER"
TAMIYA







I returned to modelling around 1987 or 1988, a few years after I was married. The closest model shop at the time was actually in a department store – Grace Bros at Roselands for any Sydney locals who might recall the place. This was a cosy plastic haven with rare imported kits and books, aftermarket decals and resin accessories - very unusual in an otherwise typically homogenised chain retail emporium.

A year or so after I came back to the hobby, Tamiya offered a limited reissue of their 1:48 scale Lancaster, which was originally released in 1975. When it appeared on the shelves at Grace Bros, I could not resist. I did not buy the kit to build straight away though. This was the same time that Trimaster burst onto the scene with their unparalleled (at the time) 1:48 scale Fw 190, He 162 and Me 262 kits. Revell also reissued their big 1:48 scale C-47 Skytrain kit.

I bought all of these kits (well, not all of the Trimaster kits as the prices were staggering) and stashed them safely in a couple of stout cardboard cartons awaiting the day that I might do justice to their high quality.

Interestingly, every one of these models remain in those cartons to this very day.

When Tamiya's re-issued Lancaster B. Mk.I/III and Grand Slam surprised me on the doorstep a few weeks ago, I returned to the carton that entombed the kits that I had bought more than two decades earlier. I hadn't even opened the plastic bags! The original sprues were moulded in black, which I never liked very much as the detail was hard to see and the paint coverage would be difficult, but otherwise I always marvelled at the size and surface detail of the kit.

This time around, Tamiya has moulded the B. Mk.I/III and Grand Slam Lancaster kits in their customary medium grey coloured plastic. I am sure that the quality of the plastic is the same as it ever was, but the parts look even better in grey.

For the B.Mk.I/III kit, there are 293 parts in grey plastic; 51 parts in clear; and markings for four aircraft. The Dambusters kit offers three marking options.

Apart from the decals, the main difference between the two kits is the bomb bay. While the B.Mk.I/III includes the standard bomb bay with conventional and Cookie bombs, the Dambusters boxing provides two sprues - one with the Grand Slam bomb and bay, and the second with the Dambuster parts.

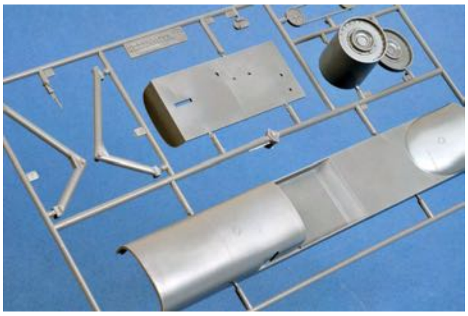
Surface detail comprises fine raised rivets and lines representing the overlapping panels of the full-sized beast.

Interior detail is adequate, but little will be seen though the canopy and turrets in any case. Even so, the kit's interior elements will form a nice basis for a super detailing project using either scratch built parts or aftermarket accessories, notably Eduard's comprehensive suite of photo-etched frets.

This time around, the kits include both paddle and needle blade propeller assemblies, and the two styles of clear nose dome.Tamiya released limited edition versions of the Lancaster in 2009 that supplied electric motors to spin the propellers, and also canopy and turret parts with pre-painted frames. For these releases, the electric motors are gone but Tamiya has retained both the painted and unpainted versions of the clear parts in each kit – a nice touch.

A number of other sprues moulded in 2009 provide new nacelle fronts with recessed panel detail and unshrouded exhausts, bulged and flattened main wheels with smooth tyres, and parts for the late rear turret with two .50 cal machine guns.

The five crew figures from the 1975 release are included in both new kits, and all the other original features are present too – bomb bay with separate doors and bombs, alternate turret armament and two basic Merlin engines.



Decals in both kits are in register and the colours look good.

The inclusion of the 2009 sprues and the painted canopy parts is a nice bonus in these Lancaster re-releases. The original parts stand up very well more than three decades after their original release too. In fact, the raised surface textures are arguably more accurate for a 1:48 scale bomber than the petite recessed panel lines that are more common in the 21st Century.

I think that it is high time that I actually built one of Tamiya's Lancasters. I will probably leave my 1990s purchase in the carton though, and start with one of Tamiya's new reissues!

Thanks to Tamiya for the samples www.tamiya.com

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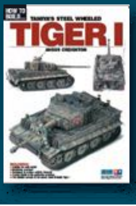
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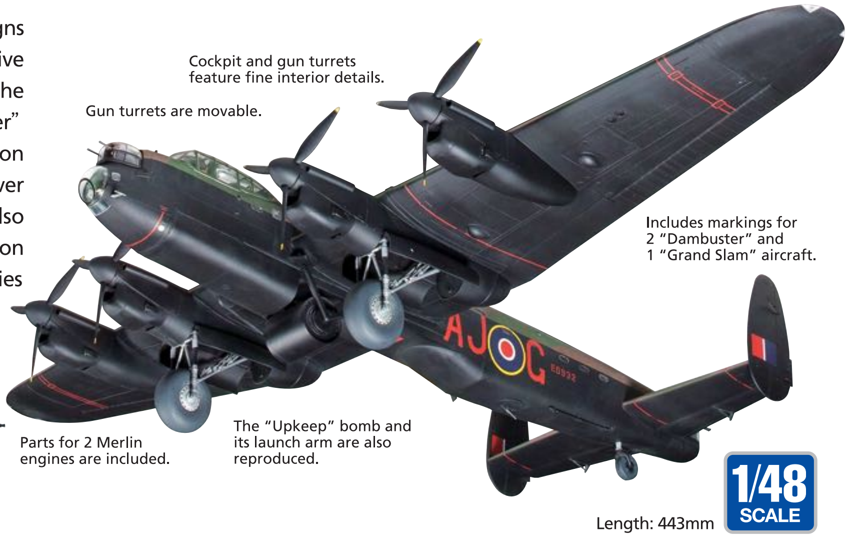
1/48 Scale Avro Lancaster B Mk.III Special "Dambuster"/ B Mk.I Special "Grand Slam Bomber" Item 61111

The Avro Lancaster was one of the most famous British aircraft designs of WWII and was well-known for being able to deliver impressive bomb loads. This capability meant it was modified to serve as the carrier for a number of special-purpose bombs. In its "Dambuster" form, the aircraft was used to drop the "Upkeep" bouncing bomb on the daring raid to destroy hydroelectric dams in Germany's Ruhr River Valley on May 17, 1943. Later in the war, Lancasters were also modified to attack highly fortified targets with the massive 10-ton "Grand Slam" earthquake bomb. Tamiya's 1/48 Scale Aircraft Series kit enables modelers to assemble either one of these modified Lancasters, complete with their respective special payloads.



Cockpit and gun turrets feature fine interior details.

Gun turrets are movable.

Includes markings for 2 "Dambuster" and 1 "Grand Slam" aircraft.

Parts for 2 Merlin engines are included.

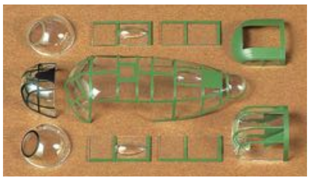
The "Upkeep" bomb and its launch arm are also reproduced.

Length: 443mm

1/48 SCALE

Parts for tires have a realistic "weighted" effect.

Massive "Grand Slam" bomb is accurately reproduced.



Both pre-painted and unpainted canopy parts are included.

Comes with 5 crew figures.

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